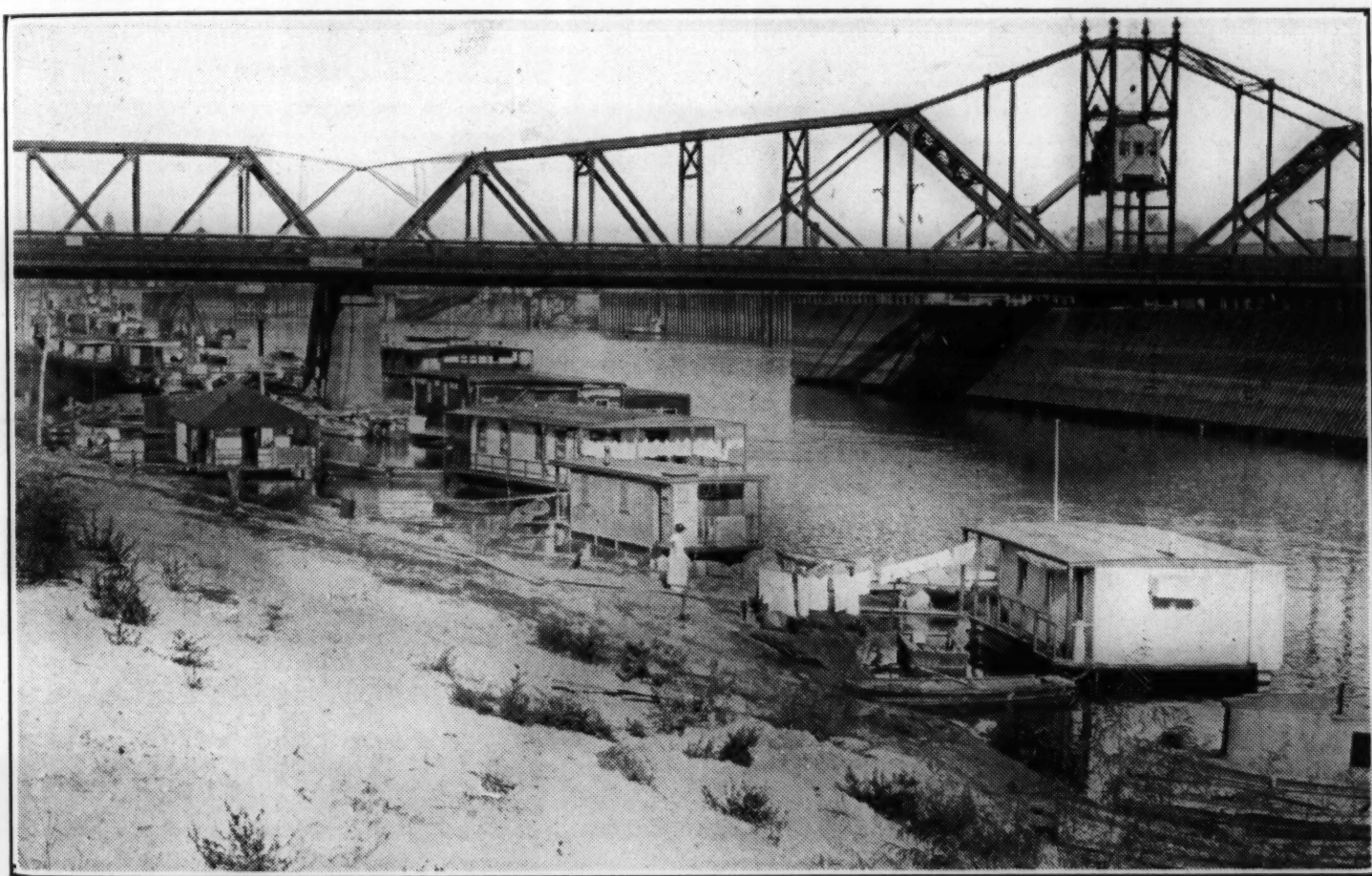


**NOTICE TO READER.**

When you finish reading this magazine, place a 1 cent stamp on this notice, hand same to any postal employee, and it will be placed in the hands of our soldiers or sailors at the front. **NO WRAPPING—NO ADDRESS.**

A. S. BURLESON, Postmaster General.

# CALIFORNIA STATE BOARD OF HEALTH MONTHLY BULLETIN



These houseboats are moored in the Sacramento River below the intake of the Sacramento city waterworks. Since our navigable streams are heavily polluted by houseboats, steamers and sewers, cities are not permitted to use untreated water from these streams for domestic purposes. No individual should take the risk of drinking from these waters.

**CONTROL OF SMALLPOX  
CORRECTABLE DEFECTS**



**JANUARY, 1918**



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# CALIFORNIA STATE BOARD OF HEALTH

## MONTHLY BULLETIN

Vol. 13

JANUARY, 1918

No. 7

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# MONTHLY BULLETIN

CALIFORNIA STATE BOARD OF HEALTH

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Devoted to the Prevention of Sickness and Death

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¶ Entered as second-class matter, August 15, 1905, at the post office at Sacramento, California, under the Act of Congress of July 16, 1894.

Sent free, on request, to any citizen of California.

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WILBUR A. SAWYER, M.D., Secretary and Executive Officer . . . Editor  
GUY P. JONES, Morbidity Statistician . . . Associate Editor

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## Country Doctors Find Carriers.

The discovery of typhoid carriers is not always confined to the activities of expensively maintained health departments. Frequently, the country doctor or the health officer in a small town is able to do excellent work in typhoid control, through his ability to detect a carrier. Dr. C. L. Sweet, of Mendocino County, recently discovered a typhoid carrier in the person of a woman who was doing the cooking for a family on a ranch. Three persons who ate the food that this woman prepared contracted typhoid fever. Doctor Sweet's discovery was confirmed by bacteriological examinations made by the Bureau of Communicable Diseases of the State Board of Health, and by the investigations of Dr. Allen F. Gillihan, State Health Officer for the North Coast District. A few months ago, Dr. O. F. Rudolph, city health officer of Corning, Tehama County, suspected a typhoid carrier in his city. His suspicions were confirmed in the investigations made by the bureau and by Dr. Frank L. Kelly, epidemiologist. If all physicians in California were to make as careful observations as these two physicians have made, many dangerous typhoid carriers would be placed under control.

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## A Local Health District In Alameda County.

Hayward, Livermore, Pleasanton and San Leandro, in Alameda County, have cooperated in the establishment of a milk inspection department equipped with a bacteriological laboratory and employing an inspector. At the end of six months, the organization of a local health district, including these towns and contiguous territory, is planned. Dr. F. W. Browning, health officer at Hayward, has been instrumental in securing the establishment of the milk inspection service which will undoubtedly lead to the permanent health unit organization. Several other communities throughout the state are seriously considering the formation of local health districts.



**Communicable Diseases Cause  
One-quarter of All Deaths.**

One-fourth of all deaths in California last year were due to communicable diseases. This means that nearly ten thousand lives in California were needlessly sacrificed during 1916. More than half of these ten thousand deaths were due to tuberculosis, and more than one-third were caused by pneumonia, while all of the other deaths from communicable diseases combined, constituted but one-eighth of the ten thousand preventable deaths. These figures give little idea of the thousands of cases of communicable diseases in which recovery is made; they serve chiefly to indicate the large numbers of deaths from tuberculosis and pneumonia.

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**Pneumonia Takes  
Many Lives.**

Lobar pneumonia as a cause of death falls but little below tuberculosis. It is said that pneumonia bids fair in the present war to lead all diseases as a cause of death. It is especially liable to attack recruits, according to the records of armies. The disease has occurred in epidemic form in a number of army camps in the United States, it being specially prevalent among the men who were assembled on the Mexican border in 1916. It is said to have been the most serious disease which threatened the successful construction of the Panama Canal, even more so than malaria. So far, the prevalence of pneumonia has tended to increase, rather than diminish as have diphtheria and tuberculosis. If the same amount of activity were directed toward its prevention as has been directed against diphtheria and tuberculosis, we could hope for corresponding reduction in the morbidity and mortality rates of this common and widely prevalent disease.

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**A Little Light on  
Lobar Pneumonia.**

Lobar pneumonia is recognized more clearly today as an infectious disease than at any time before. Until recently, its prevention was regarded as hopeless, but recent researches in the bacteriology of the disease have added considerable information regarding its epidemiology. Bacteria, to all appearances identical with those causing pneumonia, are found in the mouths of many persons who are in normal health. It has been found, however, that only certain types of the pneumococci cause the disease. By the employment of specific immunity reactions, the differentiation of the harmless from the pathogenic types has been made possible. The Rockefeller Institute for Medical Research has announced that "those pneumococci most commonly found in the mouth secretions of normal individuals give rise to a minority of the cases of lobar pneumonia. Certain other types cause a majority of cases of lobar pneumonia and are of high virulence for human beings, and are seldom found in the mouth secretions of normal individuals who have not been in intimate association with cases of lobar pneumonia. This seems to indicate that lobar pneumonia, due to these other types, does not arise from infection with a pneumococcus which is habitually carried in the mouth, but that infection with these organisms occurs from without."



If It's Germs,  
He's Agin' 'Em.

Newspapers in California have recently published a review of an article by one John B. Fraser, M.D., C.M., of Toronto, which appeared originally in an anti-vivisection magazine, the article declaring that germs are in no way responsible for disease. According to the results of "experiments" recorded by the author, some Toronto people were fed with typhoid, diphtheria, pneumonia, tuberculosis, meningitis and mixed germs: they were injected with them, had their noses, throats and tonsils swabbed with them, "a total of 144 experiments and with absolutely no sign of disease." This select group of Canadians seems to possess a high degree of immunity which for some reason or other does not affect the city's published morbidity and mortality rates. In addition, the author condemns many of our most successful public health methods, although the review published in California does not so state. These include the chlorination of drinking water, pasteurization of milk and quarantine of diphtheria cases after clinical symptoms have disappeared. In fact, he is "agin" these practices, by which the lives of little children are saved and by which much suffering and sickness is prevented. He calls them "citizens' mistakes." He says in a letter, "Our investigations has shown that germs bear the same relation to disease that leaves do to a tree—the tree produces the leaf (not *vice versa*) and as different leaves represent different trees, so different germs represent different diseases." In California, if we plant germs in favorable media, we produce a crop of germs, but neither our orange groves nor our gigantic redwood forests sprang from buried leaves.

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Early Results Insure  
Final Success.

The good results of the army's modern program for the prevention of venereal disease are evident in the military camps of the Pacific Coast. While many men have arrived in camp already infected, the number of these who contracted infection after arrival is extremely small. In fact it was announced at Tacoma by army officers, at the recent Conference of the Northwestern States on the Prevention of Venereal Diseases, that only 16 men had been infected with venereal diseases after arrival at Camp Lewis. On the other hand, over a thousand men, before coming to camp, had been infected in their home communities, where educational work and law enforcement in matters relating to venereal disease are sadly deficient. Similarly, in Camp Kearney the great majority of the infections with venereal disease are chronic and all but a small per cent were contracted before the men came to camp, some of them years before the war began. The Army has assumed a great burden in accepting infected men from the civil population, but it is achieving a signal victory in keeping down venereal disease among the men who arrived clean. Moreover, the Army is demonstrating to the world that education and the repression of prostitution are effective weapons in venereal disease control.

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Good Work at  
Camp Lewis.

It is indeed gratifying to learn of the intensive work in venereal disease control being carried on at Camp Lewis, American Lake. Good results have been secured through the cooperation of the army medical officers and the Oregon Social Hygiene Association. Meetings are being held systematically and the soldiers and



officers are required to attend. These meetings are addressed by an army medical officer selected for his speaking ability and insight into the venereal disease problem and the psychology of the young man. The address of the medical officer, confined largely to the plain statement of facts, is followed by an appeal from an experienced lecturer furnished by the Oregon Social Hygiene Society. It is said that there is a growing sentiment among the men against the fellow who will expose himself to venereal disease.

★ ★ ★ ★ ★

**Portland, Tacoma and Seattle  
Fight Venereal Diseases.**

Portland and Tacoma have adopted ordinances based on the California program for the control of venereal diseases. In both these cities and in Seattle cases of venereal disease are being isolated and treated at public expense whenever this is necessary for the protection of the public health. In connection with the repressive measures which are being undertaken at Seattle over one hundred infected prostitutes have been placed under isolation and treatment by the health department. The larger cities of California, Oregon and Washington are doing most commendable work in the repression of prostitution and the direct control of venereal diseases. The smaller cities should follow the same methods and share in the benefit.

★ ★ ★ ★ ★

**The State Board of Health to  
Cooperate in Educational Work.**

While the educational work at Camp Lewis has somewhat anticipated the plan of the government, due in large part to the early activity of the medical officers and the Oregon Social Hygiene Association, a nation-wide plan is getting under way. Within the War Department Commission on Training Camp Activities there has been created a Department of Social Hygiene Instruction. This department is responsible for the important work of giving lectures, placing exhibit material, and distributing within the camps printed matter on the subject of social hygiene. At the request of Mr. Walter Clarke, the director of the department, the Bureau of Venereal Diseases will furnish the needed lecture service and exhibit material in the California camps in conformity with the army plan. A stereomotorgraph and a set of lantern slides have already been ordered by the Bureau for Camp Kearney. The educational work is most permanent in its results and must not be permitted to lag behind the more spectacular and rapid methods of law enforcement and the direct control of venereal diseases.

★ ★ ★ ★ ★

**Good Food on  
Dirty Dishes.**

If cooking is an art, then dishwashing is a science. Unfortunately, many of our restaurants practice neither art nor science, even though most people are willing to sacrifice a small degree of art for the benefit of science. It is not stimulating to one's aesthetic senses to see dirty dishes hurriedly dipped into greasy dishwater and used for serving food, without proper scalding or drying, nor is it good practice from the public health standpoint. Furthermore, the best of food may be wasted if served on dirty dishes. It would seem that many restaurants must be under constant supervision as a reminder that good dishwashing is of equal importance with good cooking.



## CORRECTABLE DEFECTS AND TUBERCULOSIS AMONG DRAFTED MEN.

When preparations were under way for the first selective draft, the State Board of Health undertook to carry on follow-up work with drafted men who would be rejected on account of tuberculosis or correctable defects. In the absence of a nation-wide plan there was danger that no provisions would be made for this work during the first draft. The examinations of the drafted men were expected to reveal large numbers of cases of tuberculosis and many defects which could be easily removed. This knowledge, if available to the health authorities and the men themselves, would permit the supervision and treatment of many persons, for their own good and that of the public health. This benefit would be most evident in the early cases of tuberculosis. The men, rejected as defectives and sometimes stunned by the information about their condition, would seriously need advice and assistance to help them regain their health, and supervision in order that others may be protected. Many of the cases would be discovered early enough in the course of the disease to permit the greatest results from advice and treatment.

Accordingly, with the approval and cooperation of the State Bureau of Registration, and the Adjutant General, acting under the direction of Governor Stephens, and with the volunteer services of selected physicians throughout the state, the work was arranged and carried out as far as this could be done in the time available. As already described in detail in the Monthly Bulletin for September, 1917, Adjutant General Borree instructed the examining physicians of all the local exemption boards in California to report cases of tuberculosis, or of defects which in their opinion were easily correctable, to the State Board of Health on the forms provided by the board.

A volunteer staff of specialists in several branches of medicine was necessary if the plan was to be a success. At the larger centers groups of specialists were selected and were given temporary appointments, without salary, as members of the Staff on Correctable Defects, or as Tuberculosis Examiners.

A list of the physicians, associations and institutions that made up the Staff on Correctable Defects and the Staff of Tuberculosis Examiners is given below. Their duties are described in the letters of notification published in the September Monthly Bulletin, pages 110 and 111:

### STAFF ON CORRECTABLE DEFECTS.

**San Francisco** (staff organized by Dr. E. F. Glaser). All defects except dental: University of California Medical School (staff: Dr. Lovell Langstroth, Dr. Hans Lissner, Dr. Herbert S. Thompson, Dr. Howard Morrow, Dr. L. P. Player, Dr. Howard H. Markel, Dr. Frederick C. Lewitt, Dr. E. F. Glaser); Leland Stanford Junior University School of Medicine.

Dental defects: University of California College of Dentistry.

**Los Angeles** (staff organized by Dr. Walter V. Brem). Dentist: Dr. F. E. Sharp. Physicians: Dr. R. L. Cunningham, Dr. D. J. Frick, Dr. Harold Smith, Dr. A. S. Granger, Dr. Eliot Alden, Dr. Guy Cochran, Dr. Frank A. Collier, Dr. Michael Creamer, Dr. Edward T. Dillon, Dr. W. A. Edwards, Dr. H. W. Howard, Dr. Thos. R. McNab, Dr. E. C. Moore, Dr. Lewis Morton, Dr. F. S. Ray,



Dr. Harlan Shoemaker, Dr. Philip Stephens, Dr. C. G. Toland, Dr. H. M. Voorhees, Dr. E. H. Wiley. Ophthalmologists: Dr. Frank E. Detling, Dr. C. E. Ide, Dr. A. L. Kelsey, Dr. H. A. Kiefer, Dr. W. L. Mansur, Dr. Lloyd Mills, Dr. W. E. Waddell. Ear, Nose and Throat Specialists: Dr. J. M. Brown, Dr. Hill Hastings, Dr. George McCoy, Dr. C. H. Montgomery. Specialists in Genito-Urinary Diseases: Dr. A. B. Cecil, Dr. L. J. Roth.

**Sacramento** (staff organized by Dr. F. F. Gundrum). Dentists: Dr. R. B. Giffen, Dr. Frederick Kestler. All defects except dental: Sacramento Settlement Association. Physicians: Dr. F. F. Gundrum. Surgeons: Dr. J. B. Harris, Dr. G. Wilson. Specialist in Genito-Urinary Diseases: Dr. Nathan G. Hale.

**Stockton** (staff organized by Dr. William Friedberger and Dr. Linwood Dozier). Dentists: Dr. George E. Minahen, Dr. A. J. Gilbert, Dr. F. A. McCan, Dr. F. P. Burton. Physicians: Dr. Linwood Dozier, Dr. E. A. Arthur. Surgeons: Dr. Ellis Harbert, Dr. Wm. J. Young, Dr. John D. Dameron, Dr. W. W. Fitzgerald. Ear, Nose and Throat Specialists: Dr. Dewey R. Powell, Dr. Benjamin F. Walker. Specialist in Genito-Urinary Diseases: Dr. C. F. English.

**Fresno** (staff organized by Dr. Clifford D. Sweet). Dentist: Dr. H. P. Beaser. Surgeons: Dr. W. W. Cross, Dr. Guy Manson, Dr. J. H. Pettis, Dr. C. D. Collins, Dr. C. O. Mitchell. Ear, Nose and Throat Specialists: Dr. D. H. Trowbridge, Dr. J. R. Walker, Dr. G. W. Walker, Dr. B. B. Lambkin. Orthopedic Surgery: Dr. Clifford D. Sweet.

**San Diego.** All defects: San Diego Diagnostic Group Clinic.

**Chico** (staff organized by Dr. Daniel Moulton). Dentist: Dr. C. M. White. Surgeon: Dr. D. H. Moulton. Eye, Ear, Nose and Throat Specialist: Dr. J. O. Chiapella.

**Pasadena.** Dentists: Dr. Geo. C. Sharpe, Dr. A. J. Butler, Dr. A. B. Allin, Dr. J. E. Macmillan, Dr. W. W. Rogers, Dr. Roy M. White, Dr. Herbert R. Parkard, Dr. G. B. Fuessels, Dr. Herman Reamer.

**Berkeley.** Dentist: Dr. Albert Howe.

**Eureka.** All defects, except dental: Sequoia Hospital.

#### STAFF OF TUBERCULOSIS EXAMINERS.

**Las Angeles** (staff organized by Dr. Walter V. Brem): Dr. R. L. Cunningham, Dr. D. J. Frick, Dr. Harold Smith, Dr. A. S. Granger, Dr. Chas. Burnside, Dr. W. C. Klotz, Dr. F. M. Pottenger, Dr. Chas. Browning.

**San Francisco:** San Francisco Association for Study and Prevention of Tuberculosis: clinics at 1547 Jackson street, Sacramento and Webster streets, and 3173 Twenty-fourth street. Dr. H. G. Mehrtens, Lane Hospital.

**Long Beach:** Dr. R. G. Henderson.

**Oakland:** Alameda County Tuberculosis Association.

**Stockton:** Dr. Linwood Dozier, Dr. J. V. Craviotto, Dr. E. A. Arthur, Dr. H. C. Petersen.

**French Camp.** San Joaquin Hospital: Dr. William Friedberger, Dr. L. E. Tretheway.

**Lodi:** Dr. J. E. Nelson, Dr. Hugh J. Bolinger.

**Tracy:** Dr. Allen R. Powers.

**Sacramento.** Sacramento Settlement Association. Staff: Dr. B. F. Howard, Dr. George A. Foster, Dr. Eugene H. Pitts, Dr. Phillip Young, Dr. J. R. Snyder.

**San Diego:** Scripps Diagnostic Clinic, Fourth and Maple streets; Tuberculosis Clinic, Seventh and B streets.

**San Bernardino:** Dr. C. M. Coy, San Bernardino County Hospital.

**San Jose:** Santa Clara County Tuberculosis Association, 19 Third street.

**Orange:** Dr. Harry E. Zaiser, Orange County Hospital.

**Ventura:** Dr. T. E. Cunname.

**Imperial:** Dr. R. K. McGuffin.

**El Centro:** Dr. Floyd A. Burger, Dr. T. O. Luckett.

**Holtville:** Dr. W. H. Wimp.

**Brawley:** Dr. Frank Dunlap.

**Calexico:** Dr. Henry C. Richter, Dr. A. L. Rice.

**Santa Barbara:** Dr. Charles Bell, Dr. Benjamin Bakewell.

**Redlands:** Dr. Gayle C. Mosely, Dr. Charles E. Ide, Dr. H. G. Hill.

**Rialto, San Bernardino County:** Dr. L. P. Barbour.

**Fresno:** Dr. Georgia E. Thompson, Dr. L. R. Willson.

**Riverside:** Dr. T. R. Griffith.

**Banning:** Dr. L. M. Ryan.

**Corona:** Dr. R. R. Root.

**Hemet:** Dr. C. E. Arnold.

**Colfax:** Dr. Robert A. Peers.

**Redding:** Dr. Sherman T. White.

**Eureka.** Sequoia Hospital Organization: Dr. Joe Walsh, Dr. Charles Crystal, Dr. John Chain.



As the report cards were received at the office of the board from the exemption boards, the tuberculosis cards were transmitted to the Bureau of Tuberculosis for record and reference to the appropriate tuberculosis examiner, and the reports of correctable defects were similarly handled in the executive office of the board. Form letters were written to all rejected men who had signed the request on the report card for examination and advice. In cases of tuberculosis a different form letter was sent in addition to those who had not signed and the assistance of the Staff of Tuberculosis Examiners and of the Bureau of Tuberculosis was offered. Many of this group responded. In the letters to the men an appointment was made for consultation and examination. Often the men lived at considerable distances from the physicians, and many were doubtless prevented from reporting for examination on account of time and expense.

Cards containing the names, diagnoses, and dates of appointment were sent in all instances to the physicians of the staffs. On the cards there were spaces for the record of the physicians. This record was to be returned to the State Board of Health when the case was closed. The following is the printing on these cards for tuberculosis and correctable defects:

C

**CALIFORNIA STATE BOARD OF HEALTH**  
**BUREAU OF TUBERCULOSIS**  
Sacramento, California

Mr. \_\_\_\_\_ of \_\_\_\_\_

rejected at the time of the selective draft by the military or naval authorities on account of tuberculosis, has been instructed to report to Dr. \_\_\_\_\_,

Tuberculosis Examiner, at the following time: \_\_\_\_\_

This record card should be filled out by the tuberculosis examiner in every case and returned in the enclosed stamped envelope. If the case proves to be one of tuberculosis the enclosed official tuberculosis report card should be filled out and returned with this record. If the patient does not appear within fourteen days after the date given above, that fact should be recorded and the card returned.

The patient reported on \_\_\_\_\_ 1917.

Important items in patient's family and personal history: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

Symptoms complained of: \_\_\_\_\_  
(See other side for physical examination)

Reverse of tuberculosis card

NAME OF PATIENT \_\_\_\_\_

Temperature \_\_\_\_\_ at \_\_\_\_\_ Weight \_\_\_\_\_

Examination of chest \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

Tubercle bacilli in sputum? \_\_\_\_\_

Examination of other parts showing evidence of tuberculosis \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_



Jan. 1918]

CORRECTABLE DEFECTS.

307

Diagnosis (including location, stage, activity, and severity of lesions) -----

Needs of the patient -----

Advice given patient -----

Referred to what person, health department, or institution, for treatment, supervision,  
or assistance -----

Recommendations to State Board of Health -----

Remarks -----

1917.

*Tuberculosis Examiner*

**D**

**CALIFORNIA STATE BOARD OF HEALTH**

Sacramento, California

Mr. ----- of -----

rejected at the time of the selective draft, or by the army or naval authorities on  
account of the following correctable defect: -----

has been instructed to report to Dr. -----

Member of the Staff on Correctable Defects, at the following time: -----

This record card should be filled out in every case and returned in the enclosed  
stamped envelope. If the patient does not appear within fourteen days of the date given  
above, that fact should be recorded and the card returned. See letter of appointment  
for statement of duties of Staff on Correctable Defects.

Important items in patient's family and personal history: -----

Symptoms complained of: -----

(See other side for physical examination)

Reverse of correctable defects card

NAME OF PATIENT -----

Physical examination -----

Diagnosis (nature, extent, and importance of the defect) -----

Treatment given patient -----



Treatment given by whom? -----  
 -----  
 Result -----  
 What cooperation from hospital or institution -----  
 -----  
 Advice given patient -----  
 -----  
 Referred to what person, or institution, and for what purpose -----  
 -----  
 Remarks -----  
 -----  
 ----- 1917. -----

*Member Staff on Correctable Defects*

Before the drafted men had reached camp, the question arose as to the care of tuberculous men who had not been recognized by the examining physicians of the draft boards, and who would be discovered and rejected during the more thorough examinations at the camps. This service was needed also for men dismissed from National Guard camps. Arrangements were made for receiving reports of rejected and dismissed tuberculous men from the camps and looking after the cases under the same general plan.

The results of the work are shown by the following tables:

Reports of correctable defects from exemption boards -----	1,348
Reports of tuberculosis from exemption boards -----	1,313
Reports of tuberculosis from army camps up to December 20 -----	967
Total reports -----	3,628

### CORRECTABLE DEFECTS.

Cards bearing request for examination and advice -----	1,129
Cards without signed request -----	219

Total reports for correctable defects ----- 1,348

Correctable causes for rejection as reported by examining physicians:

Defects of vision -----	89
Defects of hearing -----	137
Defects of teeth -----	22
Defects of nose and throat -----	38
Defects of heart -----	20
Defects of digestive tract -----	3
Appendicitis -----	5
Displacements abdominal organs -----	2
Hernia -----	563
Hemorrhoids -----	53
Fistula -----	19
Typhoid fever, dysentery -----	3
Syphilis -----	30
Gonorrhœa -----	36
Varicocele, hydrocele -----	83
Disease of the kidneys -----	2
Other defects genito-urinary tract -----	13
Diseases of the skin -----	9
Varicose veins -----	31
Tumors and cysts -----	4
Abscesses and sinuses -----	4
Deformities -----	69
Defective feet -----	52
Underweight -----	45
Bursitis -----	3
Partial paralysis -----	2
Unclassified -----	8
Defect not specified -----	3

Total ----- 1,348



## Number reporting for examination:

Men who reported for examination	319
Men who failed to report	594
Letters to men returned unclaimed	24
Men not referred because no local staff	147
Men referred but no final report from staff	45
Total number of men requesting examination	1,129

## Disposal of cases:

Men advised and treated by staff	78
Men advised and referred to other physicians	13
Men advised who declined treatment	83
Men reported under care private physicians	26
Men advised but not offered treatment because they claimed exemption on other grounds than their physical condition	32
Defects as reported by exemption board physician not confirmed	3
Men reported as not unfitted for army service by defects	13
Defects reported by staff as not correctable	16
Men not in position to accept treatment at present	34
Men reporting to office of board in person or by letter	21
Total	319

## TUBERCULOSIS.

Reports of tuberculous men rejected by exemption boards	1,313
Cards bearing request for examination and advice	1,152
Cards without signed request	161
Reports of tuberculous men discharged from army camps up to December 20, 1917	967
Total reports for tuberculosis	2,280

## Men Rejected at Time of Draft.

## Number reporting for examination:

Men who reported to staff	420
Men investigated by tuberculosis nurses	55
Men who failed to report	552
Men who had left the state before notification	14
Letters to men, returned unclaimed	42
Address of men not given on report card	3
Men not referred because no local staff	28
Men referred but no final report as yet from staff	199
Total reports of tuberculous rejected men	1,313

Disposal of cases:

Men who reported to staff or seen by tuberculosis nurses	475
Men reported as under care private physicians or sanatoria	105
Men found by staff not to have tuberculosis	17
Cases investigated by visiting nurses and reported to Bureau of Tuberculosis	55

## Men Discharged From Army Camps on Pacific Coast.

Men belonging to California	447
Men belonging in 41 other states and District of Columbia	520
Total men reported by seven army posts and the marines up to December 20, 1917	967

In the follow-up work among the tuberculous men the Bureau of Tuberculosis had the services of its tuberculosis nurses and investigators. In one region where there were no tuberculosis examiners, Dr. Chesley Bush of Colfax and a nurse were sent into the principal city, as representatives of the Bureau of Tuberculosis, to hold an examining clinic.

The tuberculosis work among rejected and discharged men is being carried on by the Bureau of Tuberculosis under the guidance of its director, Mrs. E. L. M. Tate-Thompson. The bureau has received



invaluable assistance from the clinics and visiting nurses of health departments and tuberculosis associations and also from the many examining physicians. The crying need is for greater bed space for early cases of tuberculosis. The draft has discovered many cases which will progress to invalidity and dependency if opportunities for proper treatment are not furnished beyond those at present available. The existing resources have been thoroughly studied and will be used to the greatest possible degree. There should, however, be in California a military tuberculosis camp in which a considerable number of early cases could be treated until the disease is arrested, and taught how to take care of themselves and protect others.

The work in correctable defects will probably be taken care of in future drafts through a nation-wide plan being prepared by the General Medical Board of the Council of National Defense. It has been proposed that the program be operated through National, State, and Auxiliary County Committees of the Medical Section, Council of National Defense. The State Board of Health is glad to have been of some service in furnishing to the men of the first draft the advantages which will later be provided by the larger plan. The work in tuberculosis, on the other hand, falls strictly within the province of the State Board of Health, and will doubtless be continued and developed until the military emergency is over and any disease problems following in its wake have been solved.

The State Board of Health extends its hearty thanks to the many who have cooperated in the work.



## REGULATIONS OF THE CALIFORNIA STATE BOARD OF HEALTH FOR THE PREVENTION OF SMALLPOX.

### Rule 1. Notification.

Any person in attendance on, or otherwise in charge of, a case of smallpox, or a case suspected of being smallpox, shall report the case immediately to the local health officer, who shall in turn report weekly, on the prescribed form, to the Secretary of the State Board of Health all cases so reported to him.

When no physician is in attendance it shall be the duty of the head of a private house or the proprietor or keeper of any hotel, boarding house, lodging house or superintendent of any orphanage or school to report forthwith to the local health officer all the facts relating to the illness and physical condition of any person in any private house, hotel, boarding house, lodging house, orphanage or school under his charge who appears to be affected with any disease presumably communicable, together with the name of such person.

NOTE 1.—Any person in attendance on a case of smallpox who fails to report the case promptly to the local health authority is guilty of a misdemeanor punishable by a fine of not less than twenty-five dollars nor more than five hundred dollars, or by imprisonment for a term of not more than ninety days, or by both such fine and imprisonment. (See Public Health Act, sections 13 [Rule 2], 16, and 21.)

### Rule 2. Diagnosis.

When the diagnosis is in doubt, the attending physician shall report the case as one of "suspected smallpox." The local health officer shall thereupon investigate with a view to establishing the diagnosis, and if unable to reach a decision, he shall report to the State Board of Health so that it may conduct an investigation.

NOTE 1.—When an epidemic of smallpox assumes a mild form even in the unvaccinated, many cases are diagnosed as chickenpox, or "Manila itch," because the vesicles are not umbilicated and are not found on the palms of the hands or soles of the feet. All reports of chickenpox occurring in adults should be investigated.

### Rule 3. Precautions to be Observed by the Physician.

The physician having charge of a case of smallpox, or a case suspected of being smallpox, shall take such precautions as may be necessary to avoid the contamination of his hands and clothing.

### Rule 4. Instructions to the Household.

It shall be the duty of the physician in attendance on a person having smallpox, or suspected of having smallpox, to instruct the members of the household in precautionary measures for preventing the spread of smallpox.

NOTE.—The following instructions are required by Rule 4:

- (1) If the patient is not removed at once to a hospital, he shall be isolated in a room screened against flies.
- (2) All persons except those having the necessary care of the patient shall be excluded from the sickroom.
- (3) The persons caring for the patient shall be vaccinated with fresh smallpox vaccine immediately prior to assuming such care.
- (4) The persons having the care of the patients shall wear washable outer garments and shall thoroughly wash the hands with soap and water after handling the patient or any object which he may have contaminated. On leaving the room in which the patient is isolated, the attendant shall take off the washable outer garment and leave it in the room until disinfected.



- (5) All discharges from the nose, mouth, or suppurating lesions of the patient shall be immediately disinfected by boiling or shall be burned. It is recommended that discharges from the nose and mouth be received on pieces of gauze or other soft cloth and that these, as well as soiled dressings which may have been used on suppurating lesions, be dropped into paper bags which can easily be burned with their contents.
- (6) Objects which may have been contaminated by the patient, shall be disinfected before being removed to any place where they might become possible sources of infection. Clothing and bedding that have been contaminated by the patient, as well as the dishes used by the patient, may be sterilized by boiling or by immersion for twenty minutes in 2 per cent carbolic acid or liquor cresolis compositus.

#### Rule 5. Investigation of Case.

Upon being notified of a case of smallpox, or a case suspected of being smallpox, the local health officer shall make an investigation which shall include an inquiry regarding the probable source of the infection. If this source of infection is outside his jurisdiction, he shall notify the State Board of Health, in order that they may inform the health officer within whose jurisdiction the infection was probably contracted. The local health officer shall determine that the instructions specified in Rule 4 are understood and observed, and in the event of their nonobservance shall take proper legal steps for their enforcement.

NOTE.—The record of investigation should include the name, address, sex, occupation and age of the patient; the dates of first symptoms, appearance of the rash, recovery, instituting and releasing quarantine; the age of the patient's first vaccination scar, and the dates of revaccination; schools or places of business attended; the probable location of the patient when infected; and persons with whom the patient was in contact twelve days before the onset of the disease. Often the first case seen by the local health officer represents a second or third transfer from the original case in the community. Investigation of schools, workshops, lodging houses, and even house to house inquiries will be necessary to discover cases which have been reported as chickenpox or never reported.

#### Rule 6. Quarantine.

If the local health officer, upon making the investigation prescribed in Rule 5, is satisfied that the case is one of smallpox, or is strongly suggestive of smallpox, he shall establish a quarantine by affixing a placard in a conspicuous place at the principal entrance to the premises. Until removal of the placard is authorized by the local health officer, no person shall enter or leave the premises or remove any article therefrom without the permission of the local health officer.

NOTE 1.—The placard specified in Rule 6 shall be in the following form, in which the name of the disease shall be in letters not less than two and one-half inches in height.



**SMALLPOX.**

These premises are declared to be in a state of quarantine. All persons are forbidden to enter or leave these premises or to remove any articles therefrom without the permission of the local health authority.

Date -----

-----  
**Local Health Authority.**

NOTE 2.—Until such time as a positive diagnosis is made in cases strongly suggestive of smallpox, the word "suspected" may precede the word "smallpox" on the placard specified in Rule 6.

NOTE 3.—The quarantined premises will ordinarily be a dwelling house with its surrounding yard. Under certain circumstances it is not necessary to quarantine an entire building, as the part in which smallpox is present may have a separate front and rear entrance and may be so constructed that persons may not enter directly from another part of the building. If the local health officer, upon investigation, finds that the conditions are such that the health of the community would be sufficiently safeguarded, he may limit the quarantine to that part of the building which is the separate abode of an entire household, as, for example, a flat or a suite of rooms in a hotel. All cases in hotels, rooming houses, and lodging houses, must be removed to a hospital, except when in the judgment of the local health officer they can be properly isolated in such hotel, rooming house, or lodging house. When a portion of a dwelling is quarantined, the placard must be conspicuously placed at the principal entrance of the part quarantined.

**Rule 7. Contacts.**

Every person who has had contact with a case of smallpox subsequent to the appearance of the smallpox eruption shall be vaccinated, or quarantined for 12 days if he refuses vaccination. If more than three days have elapsed between the date of exposure and the date of vaccination the contact shall be kept under observation until evidence of immunity is secured. Immediately after vaccination, contacts who are inmates of the quarantined premises may be released from such premises on condition that they do not enter them until after the termination of the case by removal or recovery. School children shall in addition be quarantined until evidence of immunity is secured.

NOTE 1.—Vaccination within three days after exposure to a patient in the eruptive stage of smallpox, the beginning of which stage is the time when the infection first becomes transmissible, will prevent smallpox. Vaccination after the third day will modify the onset, and vaccination within the first ten days after symptoms have appeared will hasten the recovery even if the onset and character of the eruption are not modified. It is therefore important to secure the vaccination of all contacts *as well as the patient*.

NOTE 2.—Evidence of immunity, as specified in Rule 8, shall be considered to have appeared:

- (1) When the areola surrounding the vaccinia vesicle has reached its maximum development. This is normally the tenth day after vaccination in the case of a primary vaccinia, and from the fourth to the seventh day in a secondary vaccinia (vaccinoid).
- (2) When an areola at least 5.0 mm. in diameter, with or without a papule, appears at the site within 24 hours after vaccination, rises to a maximum development in 48 hours, and fades without developing a vesicle (reaction of immunity).

**Rule 8. Release from Quarantine.**

As soon as a person has recovered from smallpox, *i.e.*, when the scabs have separated and the scars have completely healed, the attending physician shall notify the local health officer. The patient and



attendants may then be released from quarantine, but any unvaccinated person remaining on the premises shall be held in quarantine for twelve days after the termination of the quarantine of the patient.

#### Rule 9. Disinfection.

Each person released from quarantine shall bathe and wash the hair with soap and water and put on clean clothes. The area of isolation shall be disinfected under supervision of the local health officer after the termination of quarantine.

**NOTE.—Directions for disinfection.** Disinfection, while of much less importance than vaccination of contacts, should be performed after the termination of quarantine. This disinfection should be a thorough cleansing of the entire area of isolation. This cleansing should consist in the scrubbing with soap and water of all woodwork and furniture. There is no necessity for washing ceilings or the upper part of walls. Upholstered furniture, carpets, and hangings should be exposed to sunlight for several days. The persons who carry out the cleansing of the rooms should be protected by vaccination with fresh smallpox vaccine before undertaking such disinfection.

#### Rule 10. Vaccination.

It shall be the duty of the local health officer to provide, at public expense, free vaccination for all persons who have been exposed to a case of smallpox, or a case suspected of being smallpox.

**NOTE.—**It is advised that the following vaccination technique be employed:

- (1) *Smallpox vaccine.* The vaccine should be shipped from the laboratory in vacuum bottles and on receipt should be removed from the vacuum bottles and the package stored in an ice box. By limiting routine vaccination to stated periods during the year, fresh vaccine may be profitably purchased in bottles containing 1 c.c. which will be sufficient for 200 vaccinations.
- (2) *Cleansing the site.* Cleanse the arm at the deltoid insertion with alcohol and dry with sterile cotton. Leg vaccination should be avoided.
- (3) *Scarification.* Large scarifications are responsible for serious complications of vaccinia. The vaccinia vesicle develops in unbroken skin outside the area of scarification which should be reduced to the minimum by avoiding cross-scarification. Make three rotary scarifications with a sterile vaccination chisel or three parallel scratches, at least one inch apart, with a sterile needle. The scratches should be three-quarters of an inch in length.
- (4) *Application of vaccine.* If the vaccine is contained in 1 c.c. vials, a sterile toothpick may be used to transfer it to the arm and rub it into the scarifications. A fresh toothpick should be used for each vaccination. and precaution should be taken to avoid contamination of the vaccine virus. If the capillary tubes are used, the sterile vaccination chisel may be used to rub in the vaccine dropped from the tube on the scarified spots.
- (5) *Dressing.* Avoid all shields or bunion plasters. The skin will protect the vesicle if the vesicle is small enough. Cover the vaccination wound with a square of sterile gauze held at the edges by adhesive tape. Stamp the date for first inspection on one of the tapes.
- (6) *Inspection.* Inspect the vaccination on the fifth and tenth days and apply fresh dressings. If the arm is painful an alcohol compress may be applied. Ointments should be avoided.
- (7) *Vaccination certificates.* Local health officers should discourage "due diligence" certificates. Two vaccinations with fresh vaccine should produce a result other than "can not be successfully vaccinated." Primary vaccinia, secondary vaccinia (vaccinoid), and reaction of immunity, are all manifestations of successful vaccination or "normal vaccinia" within the meaning of the law. One of the three results should follow every vaccination and its failure to appear suggests inert vaccine or faulty technique. In addition to the form prescribed in the vaccination act, it is recommended that space be provided as on the following form for designating which of the three forms of "normal vaccinia" resulted from the vaccination.



## SMALLPOX VACCINATION CERTIFICATE.

-----, Cal., -----, 191---

This is to certify that -----

was vaccinated on -----, 191---, with

proper aseptic precautions, and with vaccine prepared under U. S. Government license. Full instructions were given for home care during the progress of the vaccinia. I have this day -----, 191---, completed my observations of the case and certified that the vaccination was successful.

Result: Vaccinia ----- Vaccinoid ----- Immunity reaction -----

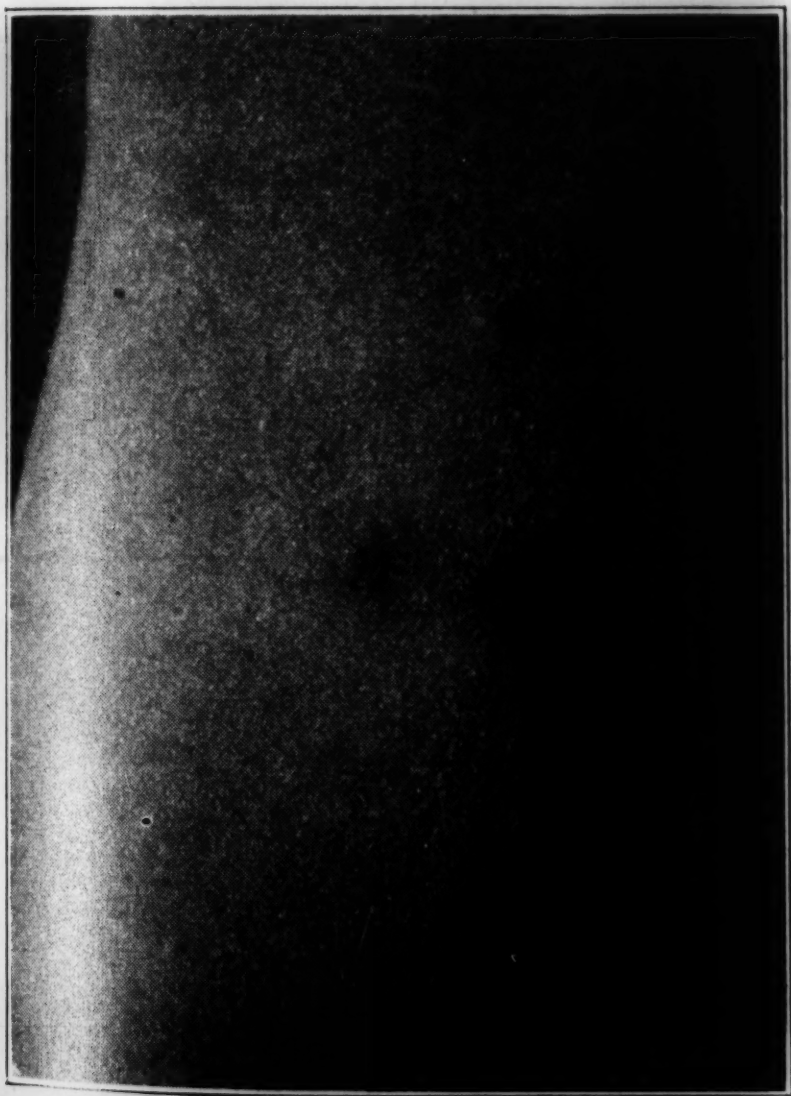
-----  
Signature of Vaccinator.-----  
Vaccine number.-----  
Limitation date.-----  
Manufacturer.

FIG. 1. Reaction of immunity twenty-four hours after vaccination. The upper spot is a control. There are 5.0 mm. areolæ around both vaccinated spots.

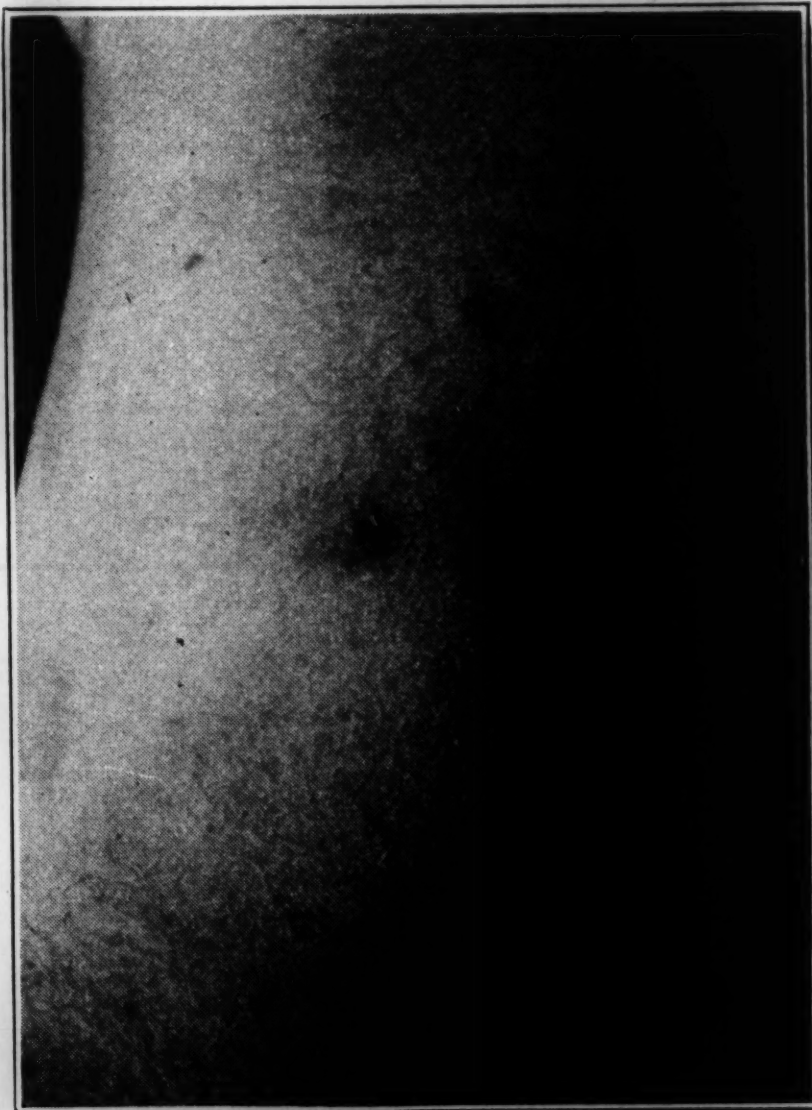


FIG. 2. Reaction of immunity forty-eight hours after vaccination. The areolæ have increased slightly and there is papule formation.



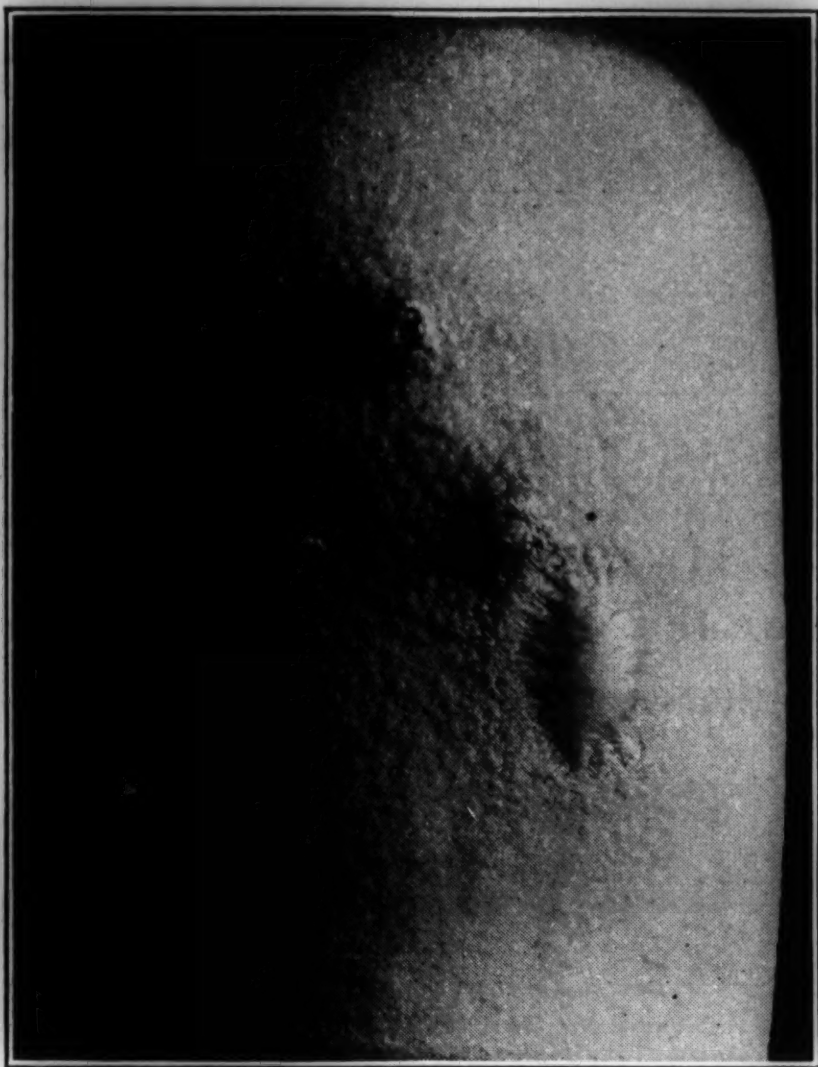


FIG. 3. Secondary vaccinia sixth day after vaccination. The reaction has attained its maximum. The previous scar is twenty years old.

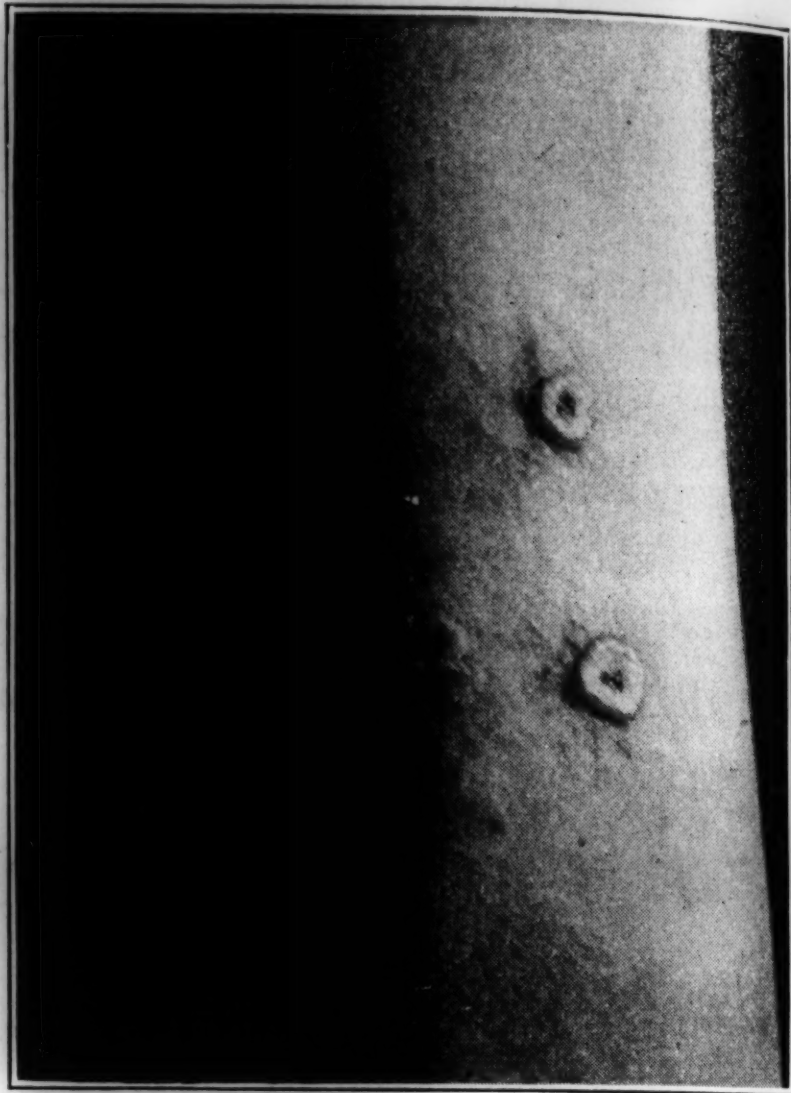


FIG. 4. Vaccinia sixth day after vaccination. Previously unvaccinated subject. Compare with Fig. 3.

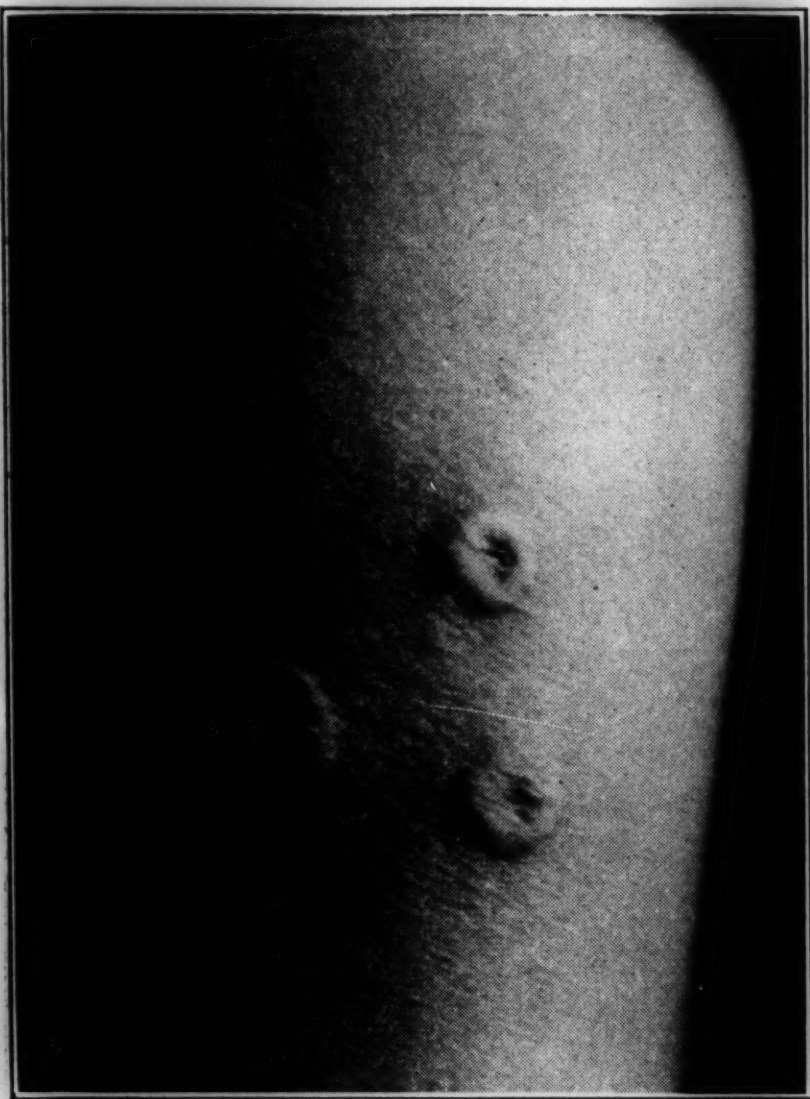


FIG. 5. Vaccinia eleventh day after vaccination. The height of the reaction. Previously unvaccinated subject.

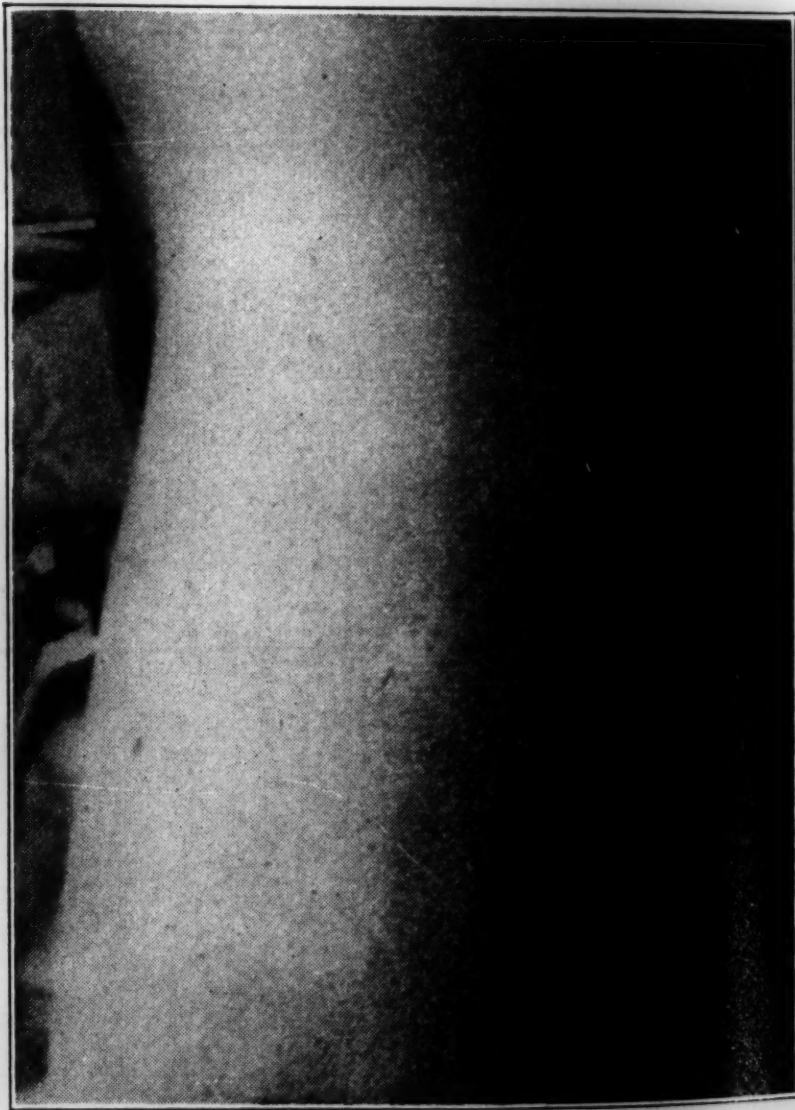


FIG. 6. Scars resulting from primary vaccinia produced by three scarifications 2 mm. in diameter. The scars measure 11 mm. in diameter each.



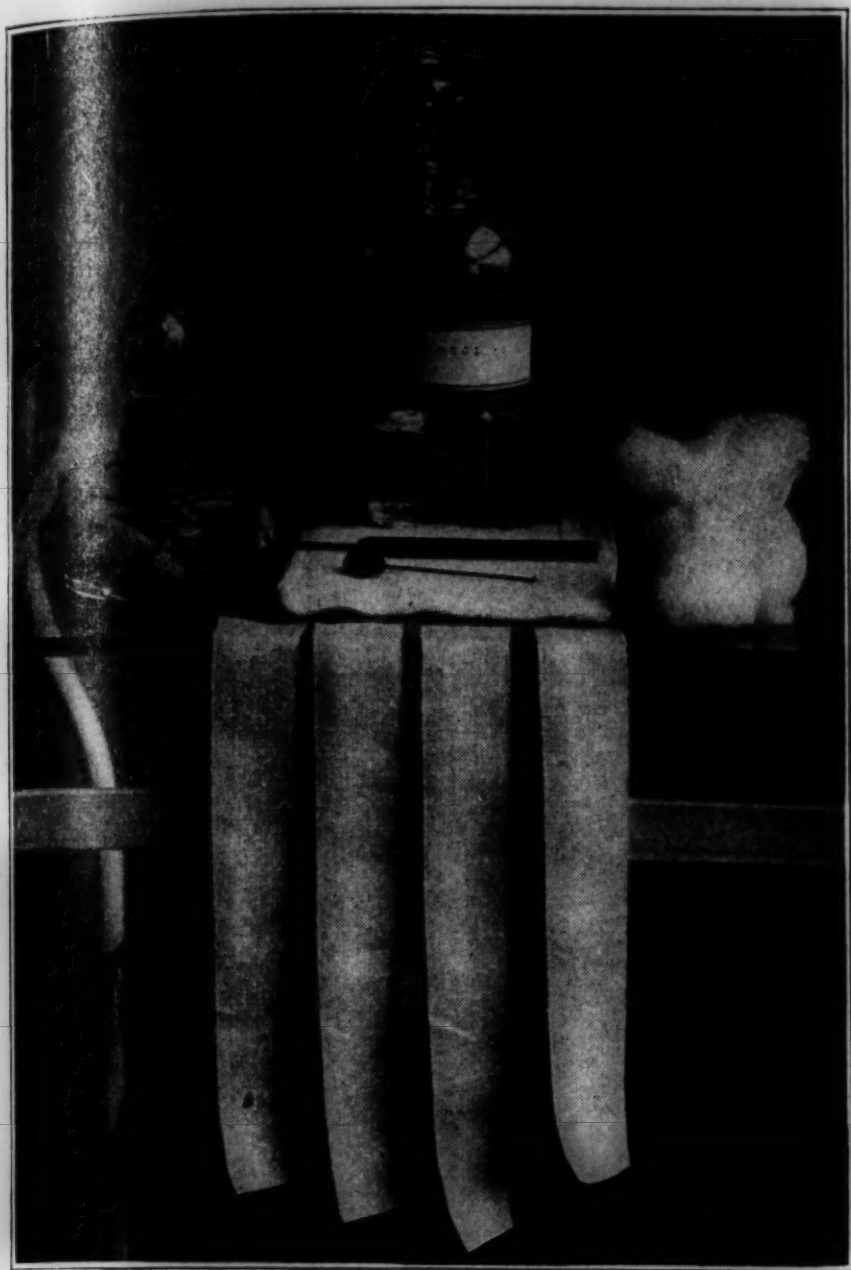


FIG. 7. Equipment necessary for vaccination with ordinary tubed vaccine. In vaccinating large groups, bulk vaccine is to be preferred.



FIG. 8. Cleansing the arm with alcohol and cotton.

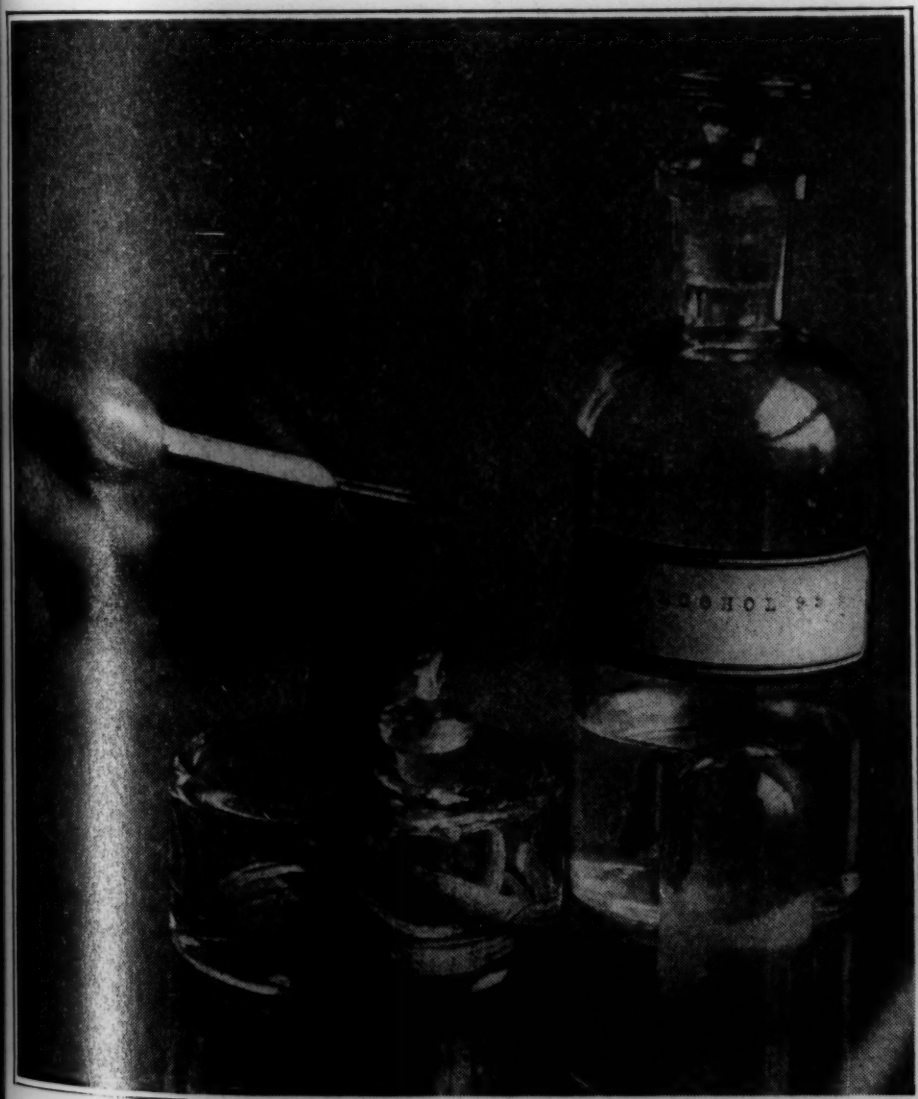


FIG. 9. Flaming the chisel which has been previously dipped in alcohol.

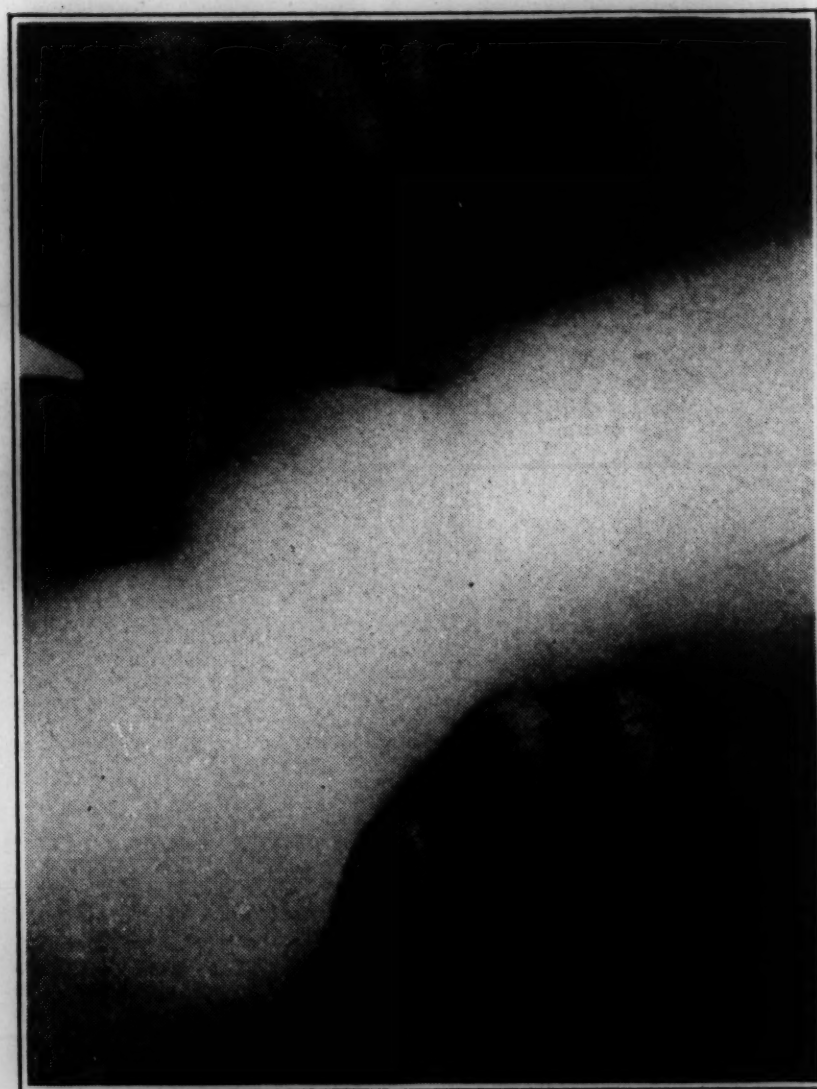


FIG. 10. Scarification of the arm. Three circles of epidermis are removed, exposing the derma.



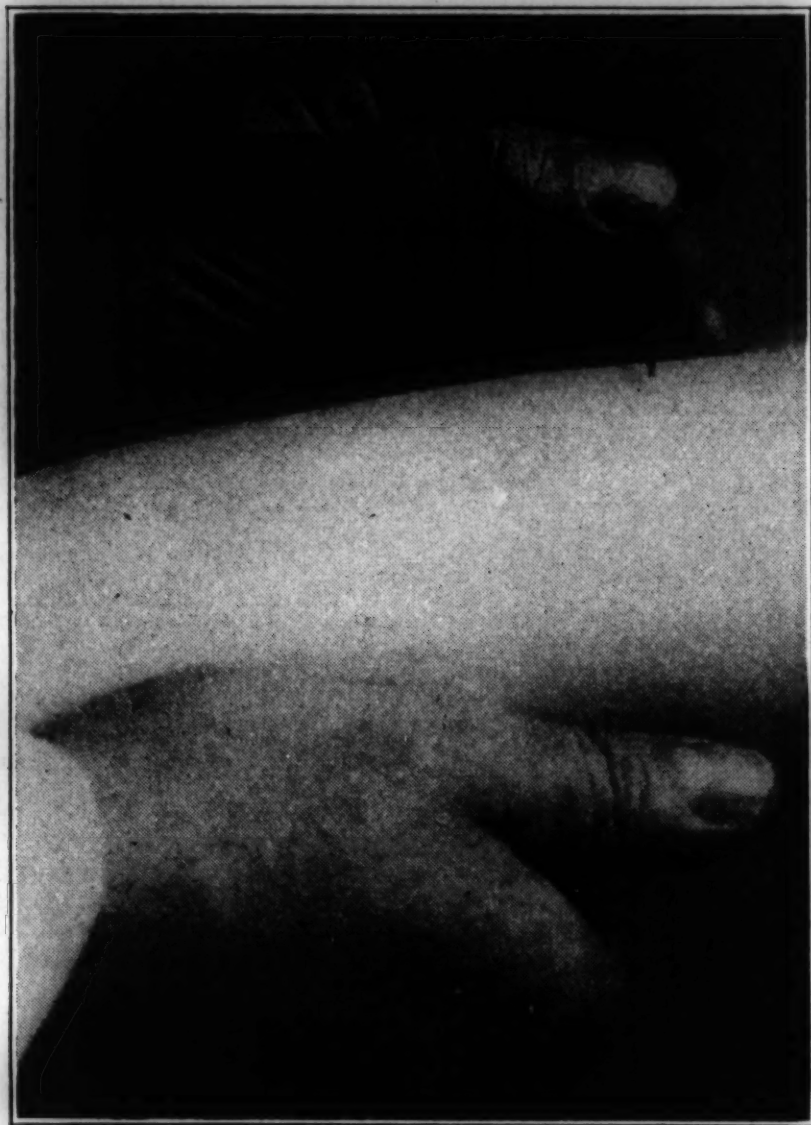


FIG. 11. Dropping the vaccine on the scarified spot. If bulk vaccine is used, a sterile toothpick may be used to transfer from the vial to the arm.

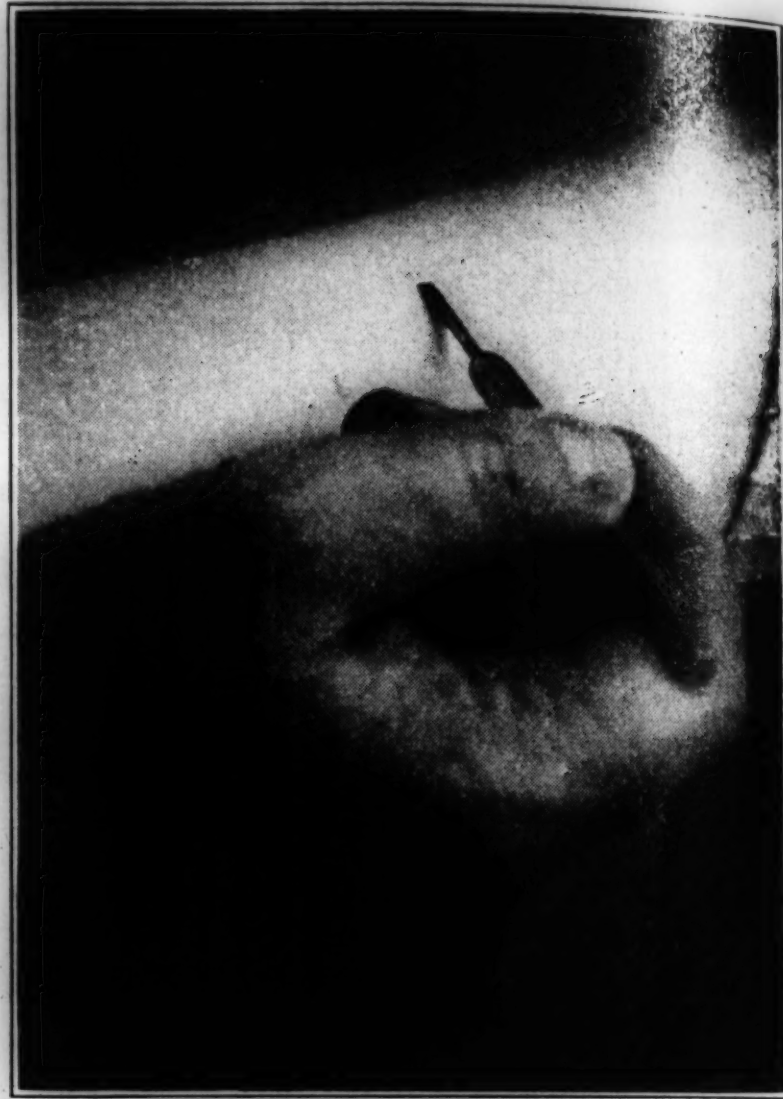


FIG. 12. Rubbing the vaccine into the scarifications. If bulk vaccine is used, the sterile toothpick used to transfer the vaccine may be used to rub it into the scarifications.

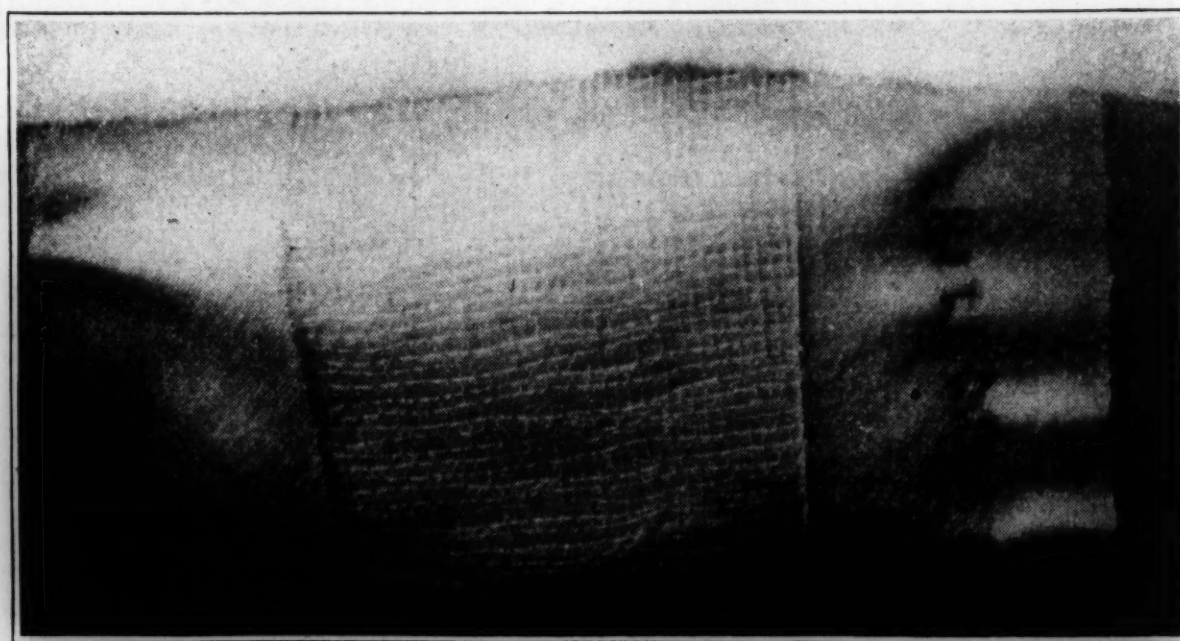


FIG. 13. Dressing of gauze and adhesive tapes. One tape bears the return date. If dressing is used it is not necessary to wait for the arm to dry before applying. If no dressing is used, allow to dry before covering with clothing. With small scarifications the dressing is not really necessary as the vesicles are very resistant.



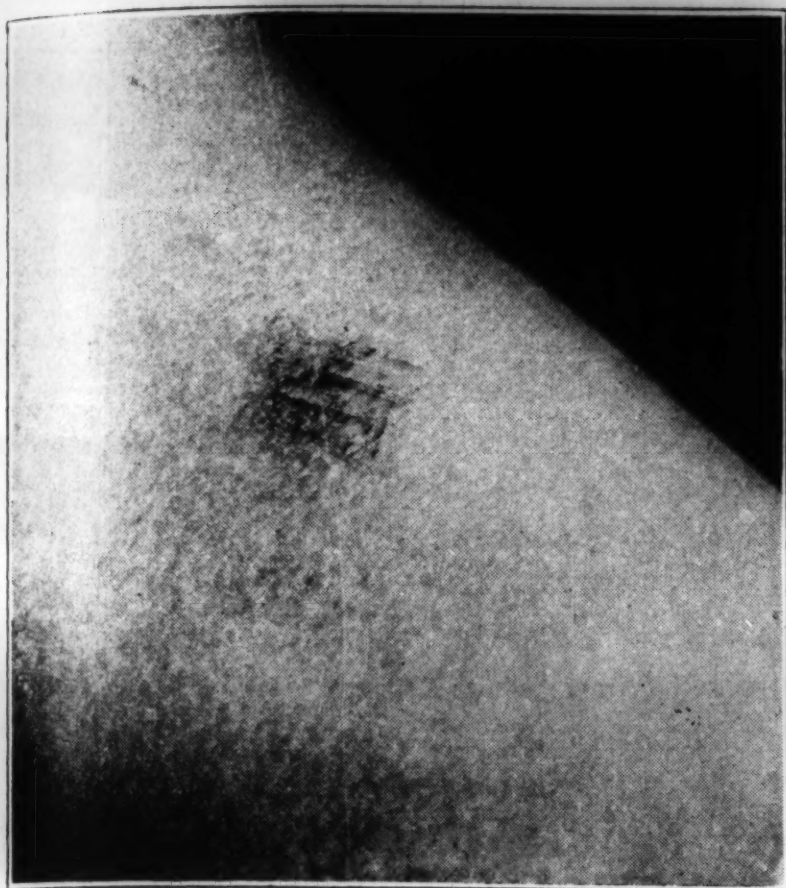


FIG. 14. Cross-scarification. One of the causes of "bad" arms.

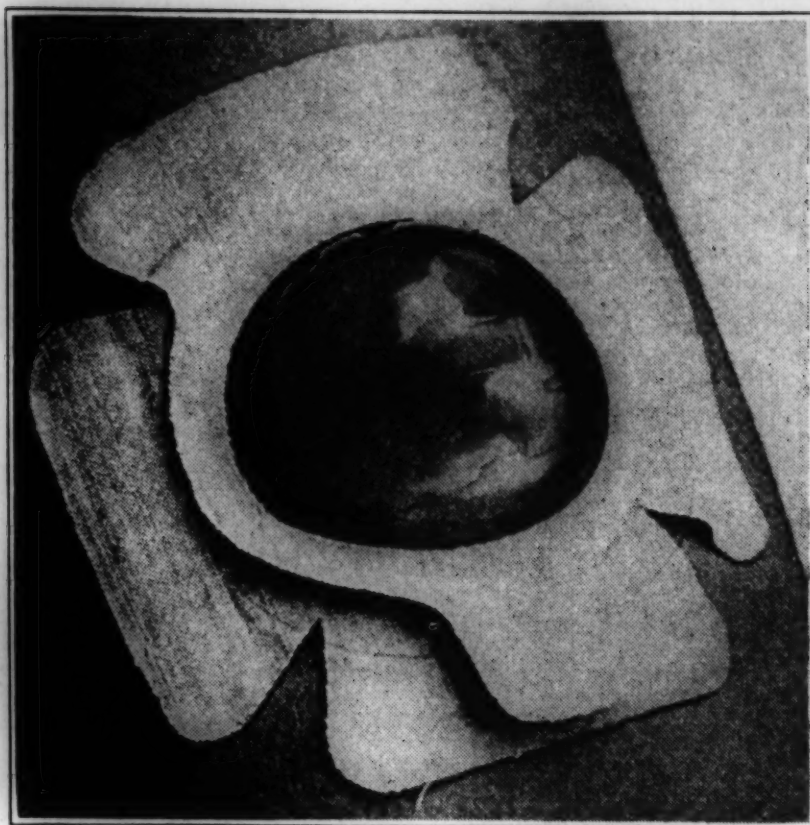


FIG. 15. The vaccination shield. Another cause of "bad" arms.

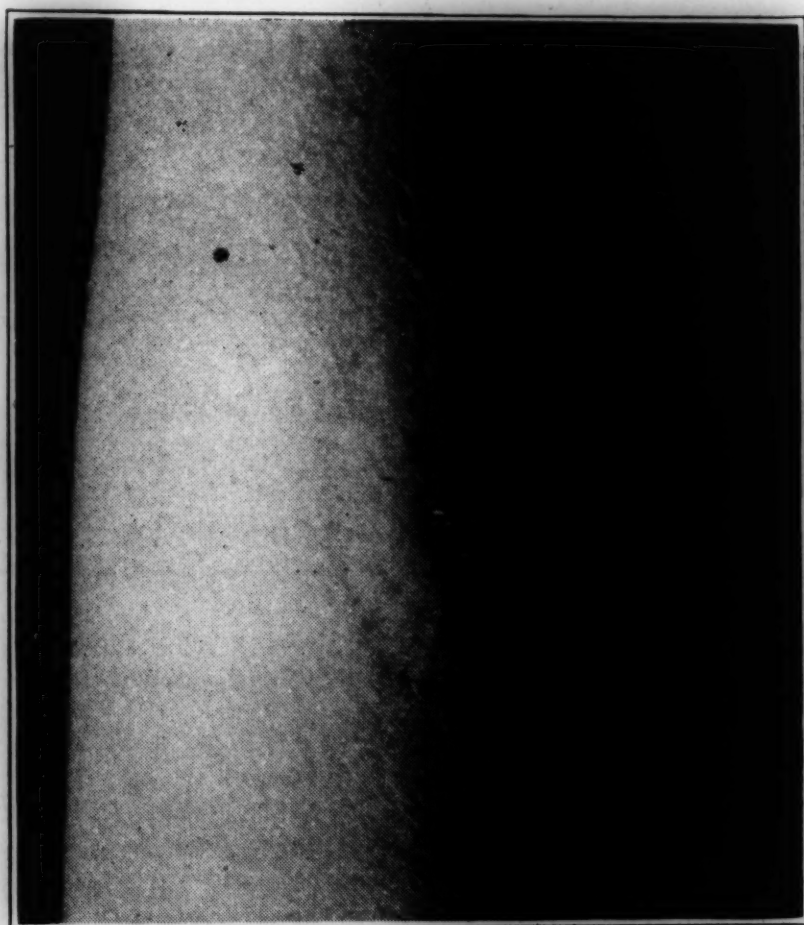


FIG. 16. Scar resulting from improper vaccination. Central necrosis, slough, infection, and a slowly healing ulcer. Patient thinks he is well protected because he had such a "hard take."



REGULATIONS OF THE CALIFORNIA STATE BOARD OF  
HEALTH FOR THE PREVENTION OF CHICKENPOX,  
MEASLES, GERMAN MEASLES, MUMPS, WHOOPING  
COUGH, EPIDEMIC CEREBROSPINAL MENINGITIS, AND  
ACUTE LOBAR PNEUMONIA.

**Rule 1. Notification.**

Any person in attendance on a case of chickenpox, measles, German measles, mumps, whooping cough, epidemic cerebrospinal meningitis or acute lobar pneumonia, or a case suspected of being one of these, shall report the case immediately to the local health officer, who shall in turn report at least weekly on the prescribed form to the Secretary of the State Board of Health all cases so reported to him. In the absence of local rules permitting notification by telephone the report to the local health officer shall be in writing.

When no physician is in attendance it shall be the duty of the head of a private house or the proprietor or keeper of any hotel, boarding house, lodging house or superintendent of any orphanage or school to report forthwith to the local health officer all the facts relating to the illness and physical condition of any person in any private house, hotel, boarding house, lodging house, orphanage or school under his charge who appears to be affected with any disease presumably communicable, together with the name of such person.

**Rule 2. Instruction to Household.**

It shall be the duty of the physician in attendance on any case suspected by him to be chickenpox, measles, German measles, mumps, whooping cough, epidemic cerebrospinal meningitis or acute lobar pneumonia to give detailed instructions to the nurse or other person in attendance in regard to precautionary measures for preventing the spread of the disease. Such instructions shall be given on the first visit and shall be in general as given in Note 1.

- NOTE.—1. If the patient is not removed at once to a hospital, he shall have a separate bed in a room screened against flies.
2. All persons, except those having the necessary care of the patient, shall be excluded from the sick room.
  3. Animals shall be excluded from the sick room.
  4. The room should be kept well aired and clean. It should be freed from unnecessary carpets, draperies, and furniture before the patient is placed in it. Dust should be avoided by frequent moist cleansing of woodwork and floors.
  5. The person caring for the patient shall avoid coming in contact with any other person within the household or elsewhere.
  6. The person having the care of the patient shall wear a washable outer garment and shall thoroughly wash the hands with soap and water after handling the patient or any object which he may have contaminated. On leaving the room in which the patient is isolated, the attendant shall take off the washable outer garment and leave it in the room until disinfected.
  7. All discharges from the nose and mouth shall be burned or disinfected. It is recommended that these discharges be received on pieces of gauze or other soft cloth and be dropped in a paper bag which is conveniently placed. The bag and its contents can be easily burned.
  8. Objects which may have been contaminated by the patient shall be disinfected before being removed to any place where they might become possible sources of infection. Clothing and bedding that have been contaminated by the patient as well as the dishes used by the patient may be sterilized by boiling or by immersion for twenty minutes in 2 per cent carbolic acid or liquor cresolis compositus.



**Rule 3. Investigation of Cases.**

Upon being notified of a case of chickenpox, measles, German measles, mumps, whooping cough, epidemic cerebrospinal meningitis or acute lobar pneumonia, the local health authority shall make an inquiry regarding the probable source of infection. If this source of infection is outside his jurisdiction he shall notify the State Board of Health in order that it may inform the health authority (local or state) within whose jurisdiction the infection was probably contracted. The local health officer shall determine that the instructions specified in Rule 2 are understood and observed and in the event of non-observance shall take proper legal steps for their enforcement. The health officer shall confirm all diagnoses of chickenpox in adults.

**Rule 4. Isolation.**

It shall be the duty of the local health officer to see that cases of chickenpox, measles, German measles, mumps, whooping cough, epidemic cerebrospinal meningitis or acute lobar pneumonia are properly isolated, and to define the area in which the patient and his immediate attendants are to be officially isolated. Without permission from the local health officer no person shall carry, remove, or cause or permit to be carried or removed from any hotel, boarding house, lodging house or other dwelling any person affected with chickenpox, measles, German measles, mumps, whooping cough, epidemic cerebrospinal meningitis or acute lobar pneumonia. Isolation in these diseases is defined as that degree of detention necessary to insure noncontact with susceptible persons.

Isolation shall be terminated only by the local health officer. When the isolation is terminated the area of isolation shall be disinfected by the boiling, or immersion in a disinfecting solution, of articles of clothing and bedding of the patient, and the washing with soap and water, or with some disinfectant, of woodwork, furniture, and any other objects that may have been handled by the patient.

**Rule 5. Period of Isolation.**

The minimum period of isolation within the meaning of this regulation shall be as follows:

*Chickenpox*—Until twelve days after the appearance of the eruption and until the crusts have fallen off.

*Measles*—Until seven days after the appearance of the rash and until all discharges from the nose, ears and throat have disappeared and the cough has ceased.

*German Measles*—Until seven days after the appearance of the rash.

*Mumps*—Until two weeks after the appearance of the disease and until the disappearance of the swelling.

*Whooping Cough*—Until three weeks after the development of the paroxysmal cough.

*Cerebrospinal Meningitis*—Until two weeks after onset and until temperature has been normal for one week.

*Pneumonia*—Until one week after the temperature has returned to normal.



**Rule 6. Contacts.**

When a person affected with chickenpox, measles, German measles, mumps, whooping cough, epidemic cerebrospinal meningitis or acute lobar pneumonia is properly isolated on the premises, adult members of the family or household, who do not come into contact with the patient or with the secretions or excretions, unless forbidden by the health officer, may continue their usual vocations provided such vocations do not bring them in close contact with children.

Every child or teacher who is an inmate of a household in which there is or has been within fifteen days a case of chickenpox, measles, German measles, mumps, whooping cough, epidemic cerebrospinal meningitis or acute lobar pneumonia shall be excluded from every public, private or Sunday-school, and from every public or private gathering of children for an amount of time corresponding to the incubation period of the disease concerned and dating from the first recognition of such disease, except upon written permission of the local health officer. Persons excluded from school under this regulation may return only on presentation to the school authorities of a certificate from the local health officer that they are eligible under this rule so to do.

**Rule 7. Incubation Period.**

For the purposes of these regulations the period of incubation (that is, between the date of exposure to the disease and the date of its development) of the following diseases is hereby declared to be as follows:

Chickenpox	-----	14 days
Measles	-----	14 days
German measles	-----	14 days
Mumps	-----	14 days
Whooping cough	-----	14 days
Pneumonia	-----	5 days
Cerebrospinal meningitis	-----	10 days

**Rule 8. Exclusion by School Authorities.**

It shall be the duty of the principal or other person in charge of any public, private or Sunday school to exclude therefrom any child or other person affected with a disease presumably communicable until such child or other person shall have been seen by the school physician or nurse, or shall have presented a certificate issued by the local health officer, or by the attending physician and countersigned by the local health officer, stating that such child or other person is not liable to convey a communicable disease.

**Facts Underlying the Modern Control of Certain Communicable Diseases.**

In the group of diseases covered in the foregoing Regulations the means of spread is the same in all. The virus in each of these diseases is present in the secretions of the mouth and nose and is carried from one person to another by any means capable of transferring the secretions from one person to the mouth or nose of another. Instances are droplet infection; *i. e.*, the inhalation of the fine droplets that are



expelled from the mouth during the acts of sneezing, coughing, or even of talking. Other means are the carriage of saliva through the medium of soiled fingers and the mouthing of objects such as toys, candy or fruit by children. Inanimate objects, such as toys, clothing, etc., are a medium for carrying the virus only when contaminated with the fresh secretions of the patient. The microbial cause in all of these diseases is very susceptible to the germicidal action of drying and light, particularly direct sunlight.

The period of greatest infectivity varies with the disease and may commence very early, as in the case of measles, which disease is infectious long before the appearance of the rash. It is due to this fact in the latter disease that isolation and quarantine of patients is so ineffective in preventing the spread of the disease. The same is true of German measles. Nevertheless isolation is well worth while, for it is estimated that this measure is responsible for a certain amount, possibly from 10 to 20 per cent, of reduction in the prevalence of the disease where it is enforced. Closure of schools during the prevalence of measles, diphtheria, whooping cough, etc., is not advised where there is in existence a system of medical school inspection. The value of school inspection by a corps of trained nurses can not be overestimated in its influence on the prevalence of the minor communicable diseases. The loss of attendance from prompt exclusion will be more than made up in the long run by the diminished prevalence of infection. Where a community possesses an organization of this kind the very best method to handle an epidemic is to keep the schools open and, with an efficient daily inspection, to send home those pupils showing the premonitory symptoms of any of these diseases, such as fever, coryza or conjunctivitis. At home there will be much less danger of communicating the infection to other children. If the schools are closed, supervision over the children ceases. In chickenpox, those cases occurring in older children and adults should have the diagnosis confirmed by the local health officer or his representative for the reason that it is sometimes difficult to distinguish between chickenpox and mild cases of smallpox, and the practitioner of medicine should welcome a division of the responsibility for the diagnosis.

In whooping cough it will be noted that the present regulations reduce the time of isolation materially over that formerly considered as necessary. The reason for this is that recent bacteriological investigations have demonstrated that the bacillus causing the disease is not present in the secretions longer than three weeks after the occurrence of the first characteristic cough. Whooping cough is a disease that is apt to be very much underrated in its importance as a disease of childhood. It stands, in fact, near the head of the list as a cause of death in children from communicable diseases, being in most statistics next to diphtheria. Whooping cough is an exceedingly fatal disease in very young children and in babies, having a mortality in children under one year of age as great as 24 per cent in some epidemics. For this reason it is imperative that communities take the necessary steps for the prevention of the spread of this disease.

In the entire group of diseases the best practice certainly is to exercise the greatest care in protecting susceptible children from cases of these diseases, for, as a rule, the younger the child the greater the mortality.



Ninety per cent of the deaths from both measles and scarlet fever occur in children under five years of age. The same may be said of whooping cough.

In epidemic cerebrospinal meningitis we now possess a specific serum treatment which is of the greatest value and the benefit derived from the use of this serum is in direct proportion to the promptness with which it is given. In communities where laboratory facilities exist a diagnosis of the kind of meningitis can be made by an examination of the spinal fluid, and this measure should be made prompt use of. The meningitis serum is effective only in infections caused by the meningococcus, and is of no use in cases of cerebrospinal meningitis due to the pneumococcus or the tubercle bacillus.

Pneumonia spreads from one person to another just as does meningitis or measles, and the patients should be isolated and all the usual precautions should be carried out for the protection of other persons and the destruction of infected discharges. The type of pneumococcus frequently present in the mouths of healthy persons is not the one usually concerned in cases of lobar pneumonia. In none of these diseases is it necessary to employ gaseous disinfection upon the termination of the disease, for, as mentioned above, the virus is present only in the secretions of the patient and is not in the air, nor on inanimate objects, excepting those soiled by the secretions and excretions of the patient. The terminal disinfection therefore need consist only of the boiling or immersion in some disinfectant solution of articles of clothing of the patient, and the washing with soap and water or with some disinfectant of woodwork furniture and any other objects that may have been handled by the patient.

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## COUNTY HEALTH OFFICE ESTABLISHES DIVISION OF VENEREAL DISEASES.

J. L. POMEROY, M.D., Health Officer, Los Angeles County.

In keeping with the plans of the State Military Welfare Commission and the State Board of Health for the prevention of venereal diseases, especially among soldiers and sailors stationed in California, I felt it my duty to aid in every way possible in making the state plans a success. I, therefore, submitted on November 26, a report to the Board of Supervisors of Los Angeles County and asked for an appropriation covering the remainder of the fiscal year to properly care for this work. At this meeting, Dr. Milbank Johnson of the State Military Welfare Commission, Dr. Walter M. Dickie, sanitarian in the Bureau of Venereal Diseases of the State Board of Health and Mr. N. R. Martin, superintendent of the County Hospital were present. These gentlemen commented very favorably upon the plan for the organization of a Division of Venereal Diseases in the County Health Office. The board of supervisors, anxious to aid in protecting our soldiers and sailors, made an appropriation of \$3,500.00, which is sufficient to carry on the work until July 1, 1918.

Since this may be the first county to take direct action to establish a Division of Venereal Diseases, our tentative plans may be of more than local interest.



In the following outline, we have endeavored to keep in mind the necessity of following very closely the recommendations of the State Board of Health and the Military Welfare Commission. Naturally, there are some local problems which differ very greatly in our county from others.

Briefly, the difficulties of administration of an organization in Los Angeles County are the large number of incorporated cities, there being 38, and while there exists in the six charter cities well organized health departments, the sixth class city still suffers from the lack of efficient health organization. The county health office covers the area of unincorporated territory which surrounds these cities and presents an area of about 3420 square miles.

#### **Necessity of Confidential Exchange Bureau.**

Since the plan of the State Board of Health requires that we must get cases reported, that we must investigate them and that we must get the cooperation of the cities, it seemed absolutely necessary to recognize at the very onset that we should establish a clearing house offering the facilities to the cities for confidential information on all cases under observation throughout the county, rural and incorporated.

#### **General Investigation.**

The Director of the Division of Venereal Diseases, Dr. Allen L. Winter, is now making investigations, looking forward to the early establishment of this clearing house as our first step toward efficient management and control of venereal diseases. If one considers for a moment the various county institutions, military camps, health departments, private physicians, social organizations, police courts, and other public and private sources of information, and realizes that the successful solution of the venereal problem means the mobilization of all these facts and resources, it would seem at once apparent that the establishment of a clearing house would be of great practical value. Personally, I see no other way that efficient business like methods can be practiced except in this manner. The work of this exchange will be taken care of by a registrar, one clerk and a part time social worker.

It is positively not the idea in the establishment of such a clearing house that any executive authority would be taken away from a health department utilizing the facilities of such bureaus.

#### **Diagnostic and Educational Work.**

In addition to the investigations of the Director and the operation of the clearing house, we have secured the assistance of Dr. O. V. Schroetter, a specialist on skin and venereal diseases, who has been long connected with the clinic at North Broadway (University of California) in Los Angeles. We expect to develop this clinic and also to assist in building up the central organization at the County Hospital. During the winter, we will register physicians for demonstrations and lectures in the proper treatment and care of venereal diseases, especially cases in the rural districts. Arrangements are being made through Dr. Geo. Kress as Dean of the University to carry this out. Dr. Schroetter, as technical expert, will also have charge of certain problems connected with the administration of salvarsan.



### Center for Treatment of Infected Persons.

Owing to the fact that the County Health Department utilizes the County Hospital as its infectious disease hospital, and that it would seem unwise to duplicate institutional control, I believe that this institution should be recognized as a center for treatment of cases. We hope to connect up very closely the supervision of these cases in the hospital with the operations of the venereal disease division. Definite arrangements are being made at the present time as to how this may be worked out.

For administrative purposes, we are studying the situation with a view to establishing at least two outlying clinics, one in San Gabriel Valley and one in the southern section of Los Angeles County.

This campaign against venereal diseases appears to me to be a social and public health problem, the solution of which requires the greatest cooperation possible between the state, county and municipal officials; we should go forward as a unit and the health office of Los Angeles County proposes to do everything possible to make the state program a success.

### NOVEMBER REPORT OF PLAGUE SUPPRESSIVE MEASURES.

W. C. BILLINGS, Surgeon, United States Public Health Service, in charge Joint Federal and State Plague Suppressive Measures.

The close of the month brought to a finish the work of the Service in the intensive eradication of ground squirrels at Camp Fremont and the extra cantonment zone. Under bureau orders of August 10, 1917, twenty-one employees who had been especially trained in ground squirrel work were concentrated at Menlo Park and the campaign inaugurated. The total amount of work performed by these men was as follows:

Acres treated with poisoned grain, 34,513, on which 17,614 pounds of poisoned barley were used. This barley was freshly prepared at the Camp in order that the very best results from its use might be obtained.

Carbon bisulphide and kilmol, applied by the destructor method, were used on 4,440 acres on which 30,930 holes were treated and 28,050 connecting holes were filled, making a total of 58,980 holes receiving attention. An inspection of practically the entire area comprised in the extra cantonment zone of 27,500 acres on two different days near the end of the month failed to show the presence of one live squirrel. Letters received by owners of the property under treatment state that they consider that squirrels have been entirely eradicated in this area. The routine work of the Service has been continued during the month in the counties of Contra Costa, Alameda, San Benito, Stanislaus, Santa Clara and Merced. At the close of business on November 30, 1917, the United States Public Health Service withdrew from squirrel eradication work in the counties of Stanislaus, San Benito, Merced and Monterey, and the work in these counties will be continued under the direction of the State Commissioner of Horticulture.

Below is appended a tabulated statement of the work during the month:

Number of inspections and reinspections of lands	1,339
Number of acres inspected and reinspected	479,830
Number of acres treated with poisoned grain	192,840
Number of acres treated with waste ball method	973
Number of holes treated	4,165

#### Work of Extra Cantonment Zone.

Number of squirrels found dead	0
Number of acres treated with kilmol	0
Number of acres treated with carbon bisulphide	848
Number of acres treated with poisoned grain	3,920
Number of holes treated	15,182
Number of gallons of carbon bisulphide used	149½
Number of pounds of poisoned grain used	768



## DECEMBER MEETING OF THE CALIFORNIA STATE BOARD OF HEALTH.

The State Board of Health met in Sacramento on December 1, 1917. The members present were: Dr. George E. Ebright, president, and Drs. Fred F. Gundrum, Edward F. Glaser, Adelaide Brown, Robert A. Peers, and Wilbur A. Sawyer.

The board approved the action of the secretary in making a temporary appointment of Dr. Chesley Bush of Colfax as Tuberculosis Expert for the purpose of examining and advising men who had been rejected at the time of the selective draft and who resided in parts of the state where local tuberculosis experts were not available.

The board appointed Mr. Arthur M. Bean as Assistant Biologist in the Division of Biology of the Bureau of Communicable Diseases on a full-time basis in order that the hookworm control work might be expedited.

On account of the rapid increase in the work of the Southern Branch Laboratory of the Bureau of Communicable Diseases in Los Angeles, the board appointed Miss Lucy Powers as laboratory helper to assist the bacteriologist in charge.

The board appointed Dr. W. A. Sawyer as a delegate to represent it at the Conference of Northwestern States on the Control of Venereal Diseases to be held in Tacoma, Washington, on December 10 and 11.

The committee on the appointment of a sanitarian in the Bureau of Venereal Diseases reported that Dr. Walter M. Dickie of Los Angeles had been appointed on November 14, 1917. This completed the staff of the bureau as originally planned.

Rules for the prevention of chickenpox, measles, German measles, mumps, whooping cough, epidemic cerebrospinal meningitis, and acute lobar pneumonia, were adopted. Also a set of rules for the prevention of smallpox was adopted. These sets of rules are printed in full in the Monthly Bulletin of the State Board of Health for January.

The board, by resolution, in accordance with the provision of chapter, 744, statutes of 1917, prescribed the following as an acceptable method of sterilizing drinking receptacles, which method may be used in place of sterilizing in boiling water or steam: The drinking receptacles shall be placed in a wire basket and immersed completely for a period of five minutes in a solution of not less than one pound of lye or caustic soda to each 2½ gallons of water, the lye being of standard commercial quality and containing not less than 96 per cent of sodium hydrate. When practicable, the lye solution should be used hot. All traces of the lye should be removed by thorough rinsing before the glasses are handled.

The board adopted the following additional rule for the enforcement of the new milk law, chapter 576, statutes of 1917:

*"Rule 5. Counts of Bacteria.* The method of ascertaining the number of bacteria in milk or cream shall be in accordance with the standard methods of the American Public Health Association for milk analysis."

The Training School for Nurses in connection with St. Catherine's Hospital at Santa Monica was placed on the list of accredited nurses training schools for one year.

Certificates as registered nurses were granted to three candidates through reciprocity and to 184 nurses who had passed the examinations held by the Bureau of Nurses Registration on October 18 and 19 in Sacramento, San Francisco and Los Angeles.

Licenses to operate cold storage warehouses were granted to three firms on the recommendation of the Bureau of Foods and Drugs. Citations had been sent out in 176 cases of alleged violations of the pure foods and drugs acts. Hearings were held and many cases were referred to district attorneys for prosecution.

W. A. SAWYER,  
Secretary.



## REPORT OF THE BUREAU OF ADMINISTRATION FOR NOVEMBER, 1917.

W. A. SAWYER, M.D., Director.

### ACTIVITIES OF THE STATE DISTRICT HEALTH OFFICERS.

#### North Coast District.

ALLEN F. GILLIHAN, M.D., State District Health Officer, Santa Rosa.

During November, Doctor Gillihan spent some time in Santa Rosa and vicinity, investigating water supplies and supervising the control of communicable diseases. He spent two days at Vallejo in conferences with naval officers and municipal officials relative to the control of venereal diseases. The scarlet fever situation in Petaluma and surrounding country was investigated and a number of the rural schools in Sonoma County were inspected. A trip was made to Elk, Mendocino County, relative to the presence of typhoid fever and the discovery of a carrier. During the month, copies of the cup, towel and hotel laws were mailed to every health officer in the district, with instructions to distribute them to people interested.

#### Northern District.

HAROLD F. GRAY, Gr.P.H., State District Health Officer, Chico.

Mr. Gray, during November, visited Orland, Hamilton, Wyo, Willows, Colusa, Butte City, Princeton, Williams, Woodland, Madison, Esparto, Winters, Davis, Sacramento, Roseville, Lincoln, Marysville, Oroville, and Folsom. Considerable time was spent in Sacramento with relation to the control of venereal diseases. A trip was also made to Berkeley, San Jose, and San Francisco, for the purpose of investigating the method of venereal disease control in the Bay region.

#### Central Coast District.

R. N. HOYT, State District Health Officer, San Jose.

During November, Mr. Hoyt visited Redwood City, Menlo Park, Camp Fremont, San Francisco, Mayfield, Berkeley, Hayward, Santa Cruz, Watsonville, Mountain View, Salinas, King City, San Luis Obispo, Arroyo Grande, Paso Robles, Coburn, Hollister, San Juan, Livermore and Pleasanton.

#### Central District.

RALPH W. NAUSS, M.D., State District Health Officer, Fresno.

Doctor Nauss, during November, visited Coalinga, Hanford, Visalia, Sanger, Reedley, Dinuba, Kingsburg, Porterville, Firebaugh and Los Banos. Doctor Nauss also attended the conference of district health officers held in Berkeley, November 30.

#### South Coast District.

EDWARD D. WARD, M.D., State District Health Officer, 210 Union League Building, Los Angeles.

Doctor Ward visited Pomona, San Pedro, Pasadena, Orange, Santa Ana, Stanton, Anaheim, Oxnard and Ventura. Doctor Ward also spent considerable time in venereal disease control work in Los Angeles.

#### Southern District.

EDWARD A. INGHAM, State District Health Officer, Riverside.

Mr. Ingham, during November, visited Venice, Long Beach, Stanton, Monrovia, Azusa, Covina, Loma Linda, San Bernardino and Blythe.



**MORBIDITY REPORTS.**

GUY P. JONES, Morbidity Statistician.

**Cerebrospinal Meningitis (Epidemic).**

Fifteen cases of this disease were reported during November—1 in Oakland, 1 in Los Angeles and 13 in San Diego County.

**Anthrax.**

Six cases of anthrax were reported during the month. They occurred as follows: Gridley 1, Salinas 1, Stockton 1, San Jose 1, Tulare County 1, and Tuolumne County 1.

**Smallpox.**

Sixteen cases of smallpox were reported during November. These cases occurred as follows: Kern County 1, Los Angeles 1, Tropico 1, Nevada County 1, Grass Valley 1, San Diego County 1, San Francisco 1, Benicia 1, and Porterville 8. Of the 16 cases reported, 12 had never been successfully vaccinated, two had been vaccinated more than seven years preceding attack, and vaccination histories were not obtainable for the remaining two cases.

**Poliomyelitis.**

Eight cases of poliomyelitis were reported during November, 1917, as against 25 such cases reported during November, 1916. The cases reported last month occurred as follows: Berkeley 2, Chico 1, Contra Costa County 1, Monrovia 1, Pasadena 1, Riverside County 1, and San Mateo 1.

**Typhoid Fever.**

Ninety-five cases of typhoid fever were reported last month. These cases were widely scattered throughout the state, being reported from twenty-nine counties.

**Leprosy.**

One case of leprosy was reported from San Francisco during the month of November.

**Pneumonia.**

Pneumonia showed an increase during November, 1917, when 286 cases were reported, as against 176 cases reported during the preceding month.

**Syphilis and Gonococcus Infection.**

Five hundred and twenty-six cases of gonococcus infection were reported during November, 1917, while but 65 such cases were reported during November, 1916. Two hundred and twelve cases of syphilis were reported during November, 1917, as against 134 cases during November, 1916.

**Chickenpox.**

Chickenpox showed a marked increase during November, 1917, when 524 cases were reported, as against 278 cases reported the month preceding. Outbreaks of this disease occurred in San Francisco, Stockton, Oakland, Alameda and Berkeley.

**Scarlet Fever, Measles and Mumps.**

Three hundred and sixty cases of measles and 327 cases of scarlet fever were reported during November, 1917, which is about the same number as were reported during October. There was a considerable reduction in the number of cases of mumps reported last month, 291 cases. During October 578 cases of this disease were reported.



*Morbidity for November, 1917, by Weeks.*

	Weeks ending				Total. Nov., 1917	Total. Nov., 1916
	Nov. 10	Nov. 17	Nov. 24	Dec. 1		
Anthrax -----	2	2	2	-----	6	-----
Beri-beri -----	-----	-----	-----	-----	-----	-----
meningitis -----	2	1	10	2	15	3
Chickenpox -----	115	126	178	105	524	480
Cholera, Asiatic -----	-----	-----	-----	-----	-----	-----
Dengue -----	-----	-----	-----	-----	-----	-----
Diphtheria -----	48	109	76	70	303	327
Dysentery -----	4	-----	1	2	7	9
Epidemic cerebrospinal	-----	-----	-----	-----	-----	-----
Erysipelas -----	6	13	7	6	32	58
German measles -----	17	29	75	115	311	127
Glanders -----	-----	-----	-----	-----	-----	-----
Gonococcus infection --	71	56	132	267	526	65
Hookworm -----	9	9	6	-----	24	-----
Leprosy -----	1	-----	-----	-----	1	1
Malaria -----	14	12	10	11	47	85
Measles -----	58	65	105	132	360	392
Mumps -----	73	74	76	68	291	435
Ophthalmia neonatorum	1	-----	1	-----	2	1
Pellagra -----	1	-----	-----	-----	1	-----
Plague -----	-----	-----	-----	-----	-----	-----
Pneumonia -----	52	90	65	79	286	217
Poliomyelitis -----	2	2	1	3	8	25
Rabies -----	-----	-----	-----	-----	-----	-----
Rocky mountain spotted	-----	-----	-----	-----	-----	-----
fever -----	-----	-----	-----	-----	-----	-----
Scarlet fever -----	70	79	88	90	327	559
Smallpox -----	1	2	1	12	16	22
Syphilis -----	33	65	63	51	212	134
Tetanus -----	1	2	1	1	5	1
Trachoma -----	-----	-----	2	32	34	8
Tuberculosis -----	116	108	184	89	497	637
Typhoid fever -----	35	25	18	17	95	91
Typhus fever -----	-----	-----	-----	-----	-----	2
Whooping cough -----	58	56	82	115	311	127
Yellow fever -----	-----	-----	-----	-----	-----	-----
Totals -----	790	925	1,184	1,267	4,166	3,805

**SANITARY INSPECTIONS.**

EDWARD T. ROSS, State Sanitary Inspector.

During November a reinspection was made of the town of Lockeport. Practically all of the sanitary improvements recommended have been made. Thirty-five miscellaneous inspections, covering public schools, public institutions, food supply places, slaughter houses, canneries, etc., were made, and a number of sanitary reports were submitted.

In company with Mr. Harold F. Gray, state district health officer, a number of reported cases of diphtheria and scarlet fever were investigated.



## REPORT OF THE BUREAU OF COMMUNICABLE DISEASES FOR NOVEMBER, 1917.

W. H. KELLOGG, M.D., Director.

### Another Typhoid Carrier Discovered.

Another typhoid bacillus carrier was detected during the month of November in the person of a woman who was acting as cook on a ranch. In this family the father and his daughter were first taken down with the disease, followed in a few days by a third case in the person of one of the laborers on the place. Investigation by one of the district health officers, in which he was greatly assisted by the attending physician, disclosed facts pointing toward the possibility of the cook being the carrier who was the cause of these cases. The laboratory examinations of material from the cases and their associates in the house showed positive Widal's in the persons of those sick with the disease and of the cook, but in no others. Stool examinations of the well persons of the household disclosed the presence of typhoid bacilli in the specimen from Mrs. M. B., the cook, but those from all the others were negative.

This woman, who proved to be a typhoid carrier, had been employed on the ranch since the early part of October, and the first case developed about a month later. She gives a history of having had typhoid fever when she was 18 years of age and again 12 years ago; also, that two years ago while working as a cook in another family in the country three members came down with typhoid fever.

The laboratory supplied the physician attending these cases with vaccine and all the contacts were immunized. As no further cases have developed, it is hoped that with the definite identification of this carrier, and with her careful instruction as to her obligation to the community she will not be the cause of any future infections.

### Change in Laboratory Districts.

The attention of physicians is called to a rearrangement of the branch laboratory districts to conform more closely to the newly-established health districts of the state.

The territory tributary to the Southern Branch Laboratory at Los Angeles will be the Southern District and the South Coast District including the counties of Mono, Inyo, Kern, Santa Barbara, Ventura, Los Angeles, San Bernardino, Orange, Riverside, San Diego and Imperial.

The Central Branch Laboratory District at Fresno will be represented by the Central Health District and will include the counties of Alpine, Amador, San Joaquin, Calaveras, Tuolumne, Stanislaus, Merced, Mariposa, Madera, Fresno, Kings and Tulare.

The Northern Branch Laboratory located at Sacramento will serve the Northern District including the counties of Siskiyou, Modoc, Shasta, Lassen, Tehama, Plumas, Glenn, Butte, Sierra, Colusa, Sutter, Yuba, Nevada, Placer, Yolo, Sacramento and El Dorado.

The balance of the state, which includes the North Coast and Central Coast Health Districts, will be served by the State Hygienic Laboratory in Berkeley. These two districts comprise the counties of Del Norte, Humboldt, Trinity, Mendocino, Lake, Sonoma, Napa, Solano, Marin, Contra Costa, Alameda, San Francisco, San Mateo, Santa Clara, Santa Cruz, San Benito, Monterey and San Luis Obispo.

Physicians are requested to see that diagnostic outfits which they mail to the laboratories bear the address of the laboratory within their districts as above described.

The Bureau of Communicable Diseases has adopted a slightly different method of taking blood specimens for the Widal reaction in typhoid fever. Instead of the dried blood method, using a piece of aluminum foil for the collection of the drop of blood, small vials with a small, sharp lance attached to the stopper, will be sent out for the collection of a fluid blood specimen. This method will enable the bacteriologists to work with more accurately measured quantities of



serum and also to use the macroscopic as well as the microscopic method in the agglutination test. It is also our practice now to test each specimen against paratyphoid as well as typhoid. In this way, some cases that are clinically typhoid, and that would ordinarily have been reported as giving a negative Widal, will be shown to be cases of paratyphoid.

Physicians are reminded that the Hygienic Laboratory in Berkeley is making the Wassermann test for syphilis and they are urged to make use of the laboratory whenever a test of this kind is indicated.

In case of inability to secure diagnostic outfits at any of our regular depositories, please notify the Director at once.

### Division of Biological Examinations.

*Summary of Examinations Made in the California State Hygienic Laboratory During the Month of November, 1917.*

Condition suspected	Positive	Negative	In-conclusive	Total
<b>Main Laboratory at Berkeley—</b>				
Anthrax -----	9	33	5	47
Diphtheria (diagnosis) -----	20	76	2 <sup>31</sup>	99
Diphtheria (release) -----	27	37	8 <sup>38</sup>	72
Diphtheria (school investigations) <sup>1</sup> -----	25	162	3 <sup>52</sup>	242
Dysentery -----		4		4
Gonococcus infection -----	6	33	5	44
Leprosy -----		14		14
Malaria -----		2		2
Rabies -----	1	3		4
Syphilis (Wassermann test) -----	24	169	20	213
Tuberculosis (sputum examinations)-----	7	19		26
Trichina -----	1			1
Typhoid (Widal test) -----	7	22	2	31
Typhoid (excreta) -----	2	5		7
Miscellaneous -----				6
Phenol coefficient tests -----				2
				814
<b>Northern Branch at Sacramento—</b>				
Diphtheria (diagnosis) -----	2	30		32
Diphtheria (release) -----	9	14		23
Malaria -----	3	7		10
Tuberculosis (sputum examinations)-----	5	22		27
Typhoid (Widal test)-----	5	15	3	23
				115
<b>Central Branch at Fresno—</b>				
Diphtheria (diagnosis) -----	12	34	2	48
Diphtheria (release) -----	13	18	1	32
Gonococcus infection -----		1		1
Tuberculosis (sputum examinations)-----	3	1		4
Typhoid (Widal test)-----		4		4
				89
<b>Southern Branch at Los Angeles—</b>				
Anthrax -----	1	2		3
Diphtheria (diagnosis) -----	22	70	4 <sup>35</sup>	101
Diphtheria (release) -----	88	184	21 <sup>321</sup>	293
Diphtheria (school investigations) <sup>2</sup> -----	37	293	6 <sup>322</sup>	358
Gonococcus infection -----	1	3	1	5
Rabies -----	1			1
Tuberculosis (sputum examinations)-----	7	27		34
Typhoid (Widal test)-----	8	26	2	36
Typhoid (excreta) -----			2 <sup>42</sup>	2
Miscellaneous -----				1
Water -----				8
				842
<b>Total number of examinations</b> -----				<b>1,860</b>

<sup>1</sup>Cultures taken from school children at Cedarville 148 and Visalia 94.

<sup>2</sup>Cultures taken from school children at Russell School, Los Angeles, 119, San Dimas 93, and Venice 146.

<sup>3</sup>No growth.

<sup>4</sup>Incomplete.



Division of Epidemiological Investigations.

Epidemiological Investigations and Other Special Investigations During November, 1917.

Main Laboratory at Berkeley:

An investigation of an epidemic of typhoid fever among the nurses of a hospital in Stockton.

An investigation of a case of poliomyelitis at Bay Point.

An investigation of an epidemic of dysentery near Winters.

An investigation of cases of typhoid fever in Mendocino County.

Conclusion of the carrier work in meningitis at Los Angeles.

Total number of investigations ----- 5

Division of Preventive Therapeutics.

Pasteur Treatment for the Prevention of Rabies by the State Hygienic Laboratory During the Month of November, 1917.

	Treatment commenced	Treatment completed
Main Laboratory at Berkeley-----	0	0
Northern Branch at Sacramento-----	0	0
Central Branch at Fresno-----	0	0
Southern Branch at Los Angeles-----	0	0
Laboratory of Sacramento Board of Health, by deputized bacteriologist -----	0	0
Laboratory of San Francisco Board of Health, by deputized bacteriologist -----	0	0
Laboratory of Los Angeles Board of Health, by deputized bacteriologist -----	0	0
Laboratory of San Diego City Board of Health, by deputized bacteriologist -----	0	0
Laboratory of Letterman General Hospital, Presidio, by deputized bacteriologist -----	0	0
Laboratory of United States Naval Hospital, Mare Island, by deputized bacteriologist-----	0	0
Totals -----	0	0

Distribution of Laboratory Products.

Vaccine for the Prevention of Typhoid Fever Issued by the State Hygienic Laboratory During the Month of November, 1917.

Number of physicians to whom vaccine was sent----- 14

Number of complete treatments sent----- 130

Ophthalmia Neonatorum Prophylactic Outfits Distributed During the Month of November, 1917.

Number of outfits, containing two ampoules each, issued----- 476

Paratyphoid Vaccine, number of treatments issued----- 12

Public Health Instruction.

Participation in Instruction in Public Health During November, 1917.

Main Laboratory at Berkeley:

Bacteriological instruction outfits sent out----- 1

Bacteriological instruction outfits in use----- 21

Lectures by the Director----- 3



## BIOLOGICAL DIVISION.

CHARLES A. KOFOID, Ph.D., Sc.D., Consulting Biologist.

During the month of November the field work on the hookworm campaign was conducted among the mines of the Mother Lode in California. During the visit of the United States Mine Rescue Car Number 1 to the Mother Lode the Biological Division of the California State Board of Health has detailed one of its assistants to cooperate with the federal authorities in the publicity work with a view to interesting the public in the importance of the extermination of hookworm. From November 7 to November 20 Mr. A. M. Bean, field agent of this division, was with the car at Martell. An exhibit of charts, lantern slides, preparations of hookworm, and a microscopic exhibit of living infective larvae was utilized in the publicity work at Jackson, Sutter Creek, and Amador City. From November 21 through the remainder of the month and into December Mr. J. D. McDonald of this laboratory was sent with the exhibit accompanying the car to Tuolumne and Calaveras counties at Angels Camp, Chinese Camp, Jamestown, and Melones.

We have also placed on exhibit a seatless toilet devised by our staff and the Engineering Department of the State Board of Health for use in the gold mines. This was on exhibit in the car, and photographs and blueprints are being distributed to mine superintendents with a view to the improvement of the sanitary conditions in the mines subject to hookworm infection.

*Summary of Examinations Made in the Biological Laboratory of the State Board of Health During the Month of November, 1917.*

Condition suspected	Positive	Negative	Inconclusive	Total
Intestinal worms—				
Hookworm -----	15	112	0	127
Schistosoma japonicum -----	1	0	0	1
Dibothriocephalus latus -----	1	0	0	1

Twenty-one of the examinations of the past month were made on stools from persons not employed in mines, but living in the mining district. No case of infection by hookworm was discovered among persons not employed in or about the mines.



## REPORT OF THE BUREAU OF TUBERCULOSIS FOR NOVEMBER, 1917.

E. L. M. TATE-THOMPSON, Director.

### Tulare County.

Dr. Chesley Bush of Colfax, appointed temporarily by the State Board of Health, and Miss Linda Mitschke, the bureau's field nurse, spent a week in Tulare County holding clinics for reexamining the men in that county who were excluded on account of tuberculosis. Twenty-seven men reported for this second examination in Lindsay, Porterville and Visalia.

Following the examination, the field nurse visited the homes of the men to instruct their families and to see if the patients could arrange to sleep out of doors.

On the strength of this work done by the bureau, and at the suggestion of the director, the Tulare County supervisors called a meeting of the Kern County and Kings County supervisors to consider the erection of a joint county tuberculosis hospital in the foothills.

### Tuberculosis Work in France.

From France comes at last a word of encouragement on the tuberculosis situation. In 1916 the municipal authorities of Paris made an appropriation of \$1,000,000 to erect barracks for tuberculous soldiers. Ten pavilions are now complete to house 700 men. Other pavilions with a capacity of 1,400 are being constructed on the grounds of four large hospitals in the suburbs.

Antituberculosis work in France is being carried on by the Red Cross also, along the following lines:

1. Intensive educational work by means of four mobile educational units. These units are establishing local antituberculosis dispensaries.
2. Four training centers for educating workers to man these dispensaries. These are at Paris, Bordeaux, Marseilles and Lyons. Eventually, it is expected to have between 300 and 400 dispensaries and upon them will fall the burden of tuberculosis control. They will be maintained by local funds, but the Red Cross will furnish special home relief for destitute families in which there is a case of tuberculosis.
3. A hospital to which moderate and advanced cases may be sent if the home condition is such that they are a menace.
4. Special provision for children exposed to tuberculosis.

This is practically our own program, but we, in this country, might through the necessity of war begin all over again with more nurses, clinics and hospitals, for we shall need them before peace comes if the present record is any forerunner, and we should train all our guns on the Invisible Enemy, loaded with every bit of public health munition we can muster.

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Doctor Peers and the director investigated a sanatorium in the southern part of the state that has splendid possibilities for a convalescent camp.

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The new Alameda County Sanatorium at Livermore will be open very soon. Hundreds of applications have been received requesting admittance.

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#### Hospitals inspected:

Fresno (3)  
Tulare (1)  
Mentone (1)  
Alameda (2)

Livermore (2)  
San Bernardino (1)  
Riverside (1)  
San Joaquin (2)



## REPORT OF THE BUREAU OF VENEREAL DISEASES FOR NOVEMBER, 1917.

H. G. IRVINE, M.D., Director.

### Work in Los Angeles.

Rapid progress has been made in carrying out the details of the plans for control and treatment of venereal diseases in Los Angeles. The city council has endorsed the plan recommended by the city health department and has made an initial appropriation of \$3,500 to immediately start the work. It is proposed that the present Inebriate Home, which is about two miles out of the city, be made into an isolation hospital, money to be provided for whatever repairing is necessary. When completed, provision will be made for fifty beds. The appropriation arranges for a matron, nurses, and a full-time physician. The hospital has been given the name Los Feliz.

Under the competent direction of Dr. Alfred R. Rogers, of the city health department, the night dispensary for venereal diseases was started in March, 1917, in the Temple Building. As evidence of the need and popularity of such a dispensary, the attendance is now about forty or forty-five at each session, and a total of 1,291 treatments have been given to December 1. The services of Dr. Rogers and his assistants have been given without salary and this wonderful progress made in spite of the lack of room and somewhat meager equipment. In recognition of the value of this work, the new plan provides for the furnishing of more room, more complete equipment, and adequate laboratory facilities.

The county board of supervisors not only endorsed the plan proposed by County Health Officer Pomeroy, which was mentioned in the December Bulletin, but have directed that thirty beds be set aside in the county hospital for the treatment of venereal diseases. Mr. Norman R. Martin, Superintendent of Charities, is very anxious that the county hospital be placed on the list of accredited hospitals and will do everything possible to conform to the standard suggested by the bureau. The police court judges and the police department have all agreed to do everything in their power to cooperate and coordinate their work with that carried on by the health department. Chief of Police Butler has always vigorously enforced the laws regarding prostitution, and will make every effort to weed out any suspicious characters and bring them into court. The police department receives a great deal of assistance from the Morals Efficiency Association, whose work is carried on under the able direction of Dr. Robert Barton. Miss Marion Lynne, Social Service Director of the bureau, is now organizing the social service work which will be carried on in connection with the work at the new Los Feliz Hospital.

While in Los Angeles recently, the director had an opportunity of visiting the Juvenile Court Hospital, whose venereal disease clinic the bureau has temporarily accredited, and in seeing personally the excellent work being done there by Dr. Harriett Probasco.

Arrangements are being made to investigate the amount of venereal disease in the jails and to institute adequate treatment where indicated. It is quite likely that this work also will be supervised by Dr. Rogers. Dr. Powers, the City Health Commissioner, is making every effort to see that competent men are placed in charge of the work as outlined in the plan which his department has proposed, and its success will undoubtedly be due very largely to this decision.

### Sanitarian Appointed.

Dr. Walter M. Dickie of Los Angeles was appointed to the position of sanitarian in the bureau on November 14, and he immediately took up his duties in connection with the work in the southern part of the state. He is assisting the local authorities in carrying out the plans both in Los Angeles and San Diego, and has already turned in some very interesting and valuable reports regarding venereal diseases in military and naval stations at San Pedro and San Diego.



### Results of Social Service Work.

During the month several conferences have been held to coordinate the work of the various agencies which Miss Lynne has succeeded in interesting in the work of the bureau. As the first tangible thing to show the effect of this work, mention is made of the report of Police Judge Oppenheim, recently published in the daily papers. A total of 156 women were brought into court during the month of November; 50 of these women were placed on probation and given opportunities to accept legitimate work; 30 more, while also remaining under probation, were returned to husbands or other relatives; 20 have been returned to relatives outside the state; the remaining 56 were either serving jail sentences or were undergoing treatment in the hospital, with their cases not finally disposed of. Owing to the lack of funds and facilities for carrying on this work, it is likely that the real results will not be as good as the apparent results. It is, however, an effort in the right direction and it is hoped that this work may result in establishing the need for investigators and probation officers in connection with the Women's Court, as well as a place of detention where women may be properly housed during the investigation period.

### Dispensaries Temporarily Accredited.

On November 15, the Sacramento City Dispensary and Receiving Hospital was temporarily accredited as an approved venereal disease dispensary up to January 1, 1918.

### Work of the Director.

The director visited Los Angeles and San Diego, spending about two weeks time in assisting in organizing the work in these two cities. In Los Angeles both the director and Dr. Sawyer spoke before the finance committee of the city council, endorsing the plan of the city health department. Later, the director addressed the board of supervisors regarding the need of obtaining beds in the county hospital. During his stay in Los Angeles, the County Hospital, Juvenile Court Hospital, Children's Hospital, Florence Crittenden Home and the Health Department Night Clinic were visited, and the venereal disease problem discussed.

On Saturday, November 24, the director had the honor of giving an address before the City Club of Los Angeles. It is rather a novel thing for such a body of men to ask to have venereal diseases discussed, and it shows plainly a determination on the part of the public to attempt to grasp this problem and cope with it. So much interest was incited by the talk that a motion was made to have copies mailed to all members of the club.

In San Diego several conferences were held with the men interested in carrying out the bureau's program and the various city and county officials will undoubtedly cooperate in every way. A day was spent at Camp Kearny, at which time opportunity was had for seeing details of the work with venereal disease as carried out at the Base Hospital. Captains Johnson and Banks have a very good department organized and are doing very efficient work with somewhat limited facilities at hand. Captain Banks was formerly city health officer of San Diego.

During his stay in the south, the director had an opportunity of discussing the details of the work with District Health Officers Ward and Ingham and to arrange rather definite plans by which their work could be of the most service to the bureau. Both of these men have since turned in some excellent reports regarding conditions in their respective districts.

### Program and Results of Repressive Measures Against Prostitution.

In attempting to carry out the program of the War Department for venereal disease control, the director and Mr. French, representative of the War Department's Commission on Training Camp Activities, have asked officials to adopt the following plan:

All public women arrested are placed under bail sufficiently high to insure their appearance in court. This has ranged from \$100 cash bail to a \$1,500 bail bond. Upon their appearance in court, the police judges arrange for their medical examination by the health authorities. This consists of a very careful



physical examination for clinical evidence of syphilis or gonorrhoea, a Wassermann test in each case and a microscopic examination of not less than three smears for gonorrhoea. These smears are made from the secretions from the urethra, the cervix uteri, and Bartholin glands. Upon clinical or laboratory evidence of either disease the patient is at once isolated and placed under treatment. In case no evidence of disease is found on repeated examination, the court is so advised, and unless an investigation by probation officers indicates other measures, a jail sentence is imposed in the event the woman is found guilty as charged. If indicated, an opportunity is given for return to home or relatives, or for legitimate work while remaining under probation. If probation is violated a jail sentence is at once imposed. In the case of women found diseased, intensive treatment is carried out, and upon their dismissal from the hospital, they are taken to court subject to the same conditions as those found not diseased, except that arrangements are made for ambulatory treatment where necessary. During the stay in the hospital mental examinations are made with a view to recommending institutional care where indicated. Fines and suspended sentences are tabooed.

It will be obvious from this program that the medical examination and treatment is simply one step in the work and that no plan for making prostitution safe is contemplated, nor will any be tolerated. With this program being carried out by Judges Oppenheim and Fitzpatrick of San Francisco, very good results appear to have been attained. Formerly, from ten to thirty women were brought into court daily. Recently there have been days when not a single case was listed and this in spite of the fact that more men have been detailed to the "Morals Squad" and they have been redoubling their efforts.

*Distribution of Arseno-Benzol During November.*

	Doses
San Francisco Hospital.....	50
Stanford University Clinic.....	18
Oakland Health Department.....	12
San Francisco Polyclinic.....	9
Los Angeles Health Department.....	6
Oakland College of Medicine and Surgery.....	4
Total .....	99

*Treatment Reports Received During November.*

	Doses
20 patients received one dose each.....	20
13 patients received two doses each.....	26
3 patients received three doses each.....	9
1 patient received four doses.....	4
37 .....	59

*Sex of Patients Receiving Salvarsan.*

Males .....	9
Females .....	28
.....	37

*Occupation of Patients Receiving Salvarsan.*

Prostitutes .....	23
Other occupations .....	14
Total .....	37
Total number of arseno-benzol ampoules distributed.....	342
Total number of treatment cards received therefrom.....	120
Total number of treatment cards distributed and not returned.....	222
.....	342



*Dispensaries and Hospitals Temporarily Accredited for Treatment of  
Venereal Disease.*

Accredited to January 1, 1918 (reported last month)-----	8
Berkeley Dispensary, Berkeley.	
Los Angeles Juvenile Hospital, Los Angeles.	
San Francisco Hospital, San Francisco.	
San Francisco Polyclinic, San Francisco.	
Stanford University Clinic, San Francisco.	
University of California Hospital, San Francisco.	
College of Physicians and Surgeons, San Francisco.	
Oakland College of Medicine, Oakland.	
Accredited to January 1, 1918 (since last report)—	
Sacramento City Dispensary and Receiving Hospital-----	1
Total -----	9

## REPORT OF THE BUREAU OF VITAL STATISTICS.

GEORGE D. LESLIE, Director.

### Improvement in Birth Registration.

Great improvements in the prompt registration of births in California are shown by close checking of local registrars' reports for recent months, as follows:

Population group	Number of cities	Per cent of delayed returns among birth certificates for—			
		July	August	September	October
Cities having in 1910 a population of—					
100,000 or more-----	3	11.2	9.3	4.9	4.0
25,000 to 100,000-----	5	5.5	7.1	6.1	1.8
10,000 to 25,000-----	13	13.5	13.4	12.0	8.3
5,000 to 10,000-----	10	12.4	12.1	11.7	12.3
Totals, cities of 5,000 or more-----	31	10.9	9.8	6.6	4.9

The group with the best showing, cities of 25,000 to 100,000 inhabitants in 1910, comprises Berkeley, Pasadena, Sacramento, San Diego, and San Jose. There was no delayed certificate among birth returns for Pasadena for October and only one each among returns for Sacramento, San Diego and San Jose that month.

Among 13 cities of 10,000 to 25,000 population in 1910, there were no delayed birth certificates in October returns for Alameda, Long Beach, Redlands, San Bernardino, Santa Cruz and Vallejo, and only one each in returns that month for Pomona, Riverside and Stockton.

Among 10 cities with 5,000 to 10,000 inhabitants in 1910, there was no delayed birth certificate in October for Alhambra and only one each for Napa, San Luis Obispo, Santa Ana and Santa Rosa.

While birth registration is perfect, or nearly so, in several cities, there is still need of further improvement, especially in rural territory. While the per cent of delayed birth certificates among October returns was only 4.9 for the whole 31 cities with 5,000 inhabitants in 1910, containing five-ninths of the population of the state, the corresponding per cent of delayed returns was as great as 15.7 for the state outside such cities, including four-ninths of the whole population.

It may be noted also that in contrast with 9.1 per cent of delayed returns among births for California as a whole in October, the per cent of delayed returns among deaths for the entire state was only 3.2. Hence, with fine progress



in some cities there is still need for further efforts in other cities as well as in rural territory to secure substantial completeness in birth registration regularly, month by month.

### Births, Deaths and Marriages for October.\*

*State, Totals and Annual Rate.* The following table shows for California as a whole, the birth, death and marriage totals for the current month and the year to date in comparison with corresponding figures for last year, as well as the annual rates per 1,000 population represented by the totals for the current month and the year to date. The rates are based on an estimated midyear population of 3,037,968 for California in 1917, the estimate having been made by the United States Census Bureau method with slight modifications.

*Birth, Death and Marriage Totals, with Annual Rate per 1,000 Population, for Current Month and Year to Date, for California: October.*

Month or period	Total		Annual rate per 1,000 population, 1917
	1917	1916	
October—			
Births -----	4,508	4,235	17.5
Deaths -----	3,215	3,054	12.5
Marriages -----	2,865	2,818	11.1
January to October—			
Births -----	42,268	41,494	16.7
Deaths -----	34,584	32,000	13.7
Marriages -----	29,233	25,206	11.6

\*NOTE.—The present report is for the month preceding but two. This order must be followed, because of the publication of the Bulletin during the early part of the month, before the tabulation of records for the next preceding month is completed.

The three totals for October, 1917, show an increase over October, 1916. The birth registration for the first ten months of 1917 exceeded the same period for 1916 by 774; the death total was 2,584 in advance of last year, and the marriage total is ahead this year by 4,027.

There was an excess of births over deaths for October of 1,293, or 40.2 per cent, and for the first ten months of 1917, 7,684, or 22.2 per cent.

The birth total for October includes 412 certificates, or 9.1 per cent of the monthly total, for births occurring in the preceding month or earlier registered finally but as delayed returns. Similarly, the death total includes 103 certificates, or 3.2 per cent, for delayed returns among deaths.

*Length of Residence.* The length of residence in California for the 3,215 decedents in October was as follows: Under 1 year 138, or 4.3 per cent; 1 to 9 years 565, or 17.6 per cent; 10 years and over 1,444, or 44.9 per cent; life 892, or 27.7 per cent; and unknown 176, or 5.5 per cent.

For residents of the 70 cities of 2,500 population in 1910, there were 135 births and 157 deaths which occurred in registration districts other than the city of residence.

*County Marriage Totals.* The counties showing the highest marriage totals for the month were as follows:

Los Angeles, 608; San Francisco, 547; Alameda, 297; San Diego, 148; Sacramento, 121; Orange, 103; Fresno, 99; San Joaquin, 76; Santa Clara, 73; San Bernardino, 67; Marin, 47; and Sonoma, 43. The aggregate for San Francisco and other bay counties was 945 against 711 for Los Angeles and Orange counties together.



*County Birth and Death Totals.* Exclusive of stillbirths in both cases, the birth and death totals for the month were as follows for the leading counties, arranged in decreasing order of birth registration:

County	Births	Deaths	County	Births	Deaths
Los Angeles -----	1,066	774	San Joaquin -----	102	99
San Francisco -----	712	538	Orange -----	95	48
Alameda -----	431	297	Tulare -----	87	34
Fresno -----	220	126	Contra Costa -----	85	48
Sacramento -----	147	114	Stanislaus -----	82	56
San Bernardino -----	133	93	Kern -----	80	48
Santa Clara -----	132	128	Imperial -----	68	22
San Diego -----	125	99	Sonoma -----	60	56

*City Birth and Death Totals.* Birth and death totals, exclusive of stillbirths, are presented similarly for the principal California cities below:

City	Births	Deaths	City	Births	Deaths
San Francisco -----	712	538	Stockton -----	59	74
Los Angeles -----	710	506	Long Beach -----	51	36
Oakland -----	288	166	Bakersfield -----	45	32
Sacramento -----	122	96	San Jose -----	45	27
Fresno -----	101	51	San Bernardino -----	38	25
San Diego -----	92	67	Richmond -----	33	12
Berkeley -----	76	40	Alameda -----	30	23
Pasadena -----	61	27	Santa Ana -----	26	19

*Causes of Death.* The following table shows the classification of deaths in California for the current month, in comparison with the preceding month:

*Deaths From Certain Principal Causes, With Proportion Per 1,000. Total Deaths for Current and Preceding Month for California: October*

Cause of death	Deaths, October	Proportion per 1,000	
		October	September
All causes -----	3,215	1,000.0	1,000.0
Typhoid fever -----	23	7.2	7.2
Malarial fever -----	7	2.2	2.9
Measles -----	1	0.3	-----
Scarlet fever -----	7	2.2	-----
Whooping cough -----	9	2.8	4.6
Diphtheria and croup -----	20	6.2	5.5
Influenza -----	4	1.2	0.6
Other epidemic diseases -----	11	3.4	5.2
Tuberculosis of lungs -----	326	101.4	97.2
Tuberculosis of other organs -----	53	16.5	13.3
Cancer -----	256	79.6	81.3
Other general diseases -----	123	38.3	41.6
Meningitis -----	36	11.2	5.2
Other diseases of nervous system -----	334	103.9	99.2
Diseases of circulatory system -----	451	140.3	157.3
Pneumonia and broncho-pneumonia -----	254	79.0	777.7
Other diseases of respiratory system -----	44	13.7	12.7
Diarrhea and enteritis, under 2 years -----	114	35.5	34.5
Diarrhea and enteritis, 2 years and over -----	30	9.3	12.7
Other diseases of digestive system -----	204	63.4	59.8
Bright's disease and nephritis -----	287	89.3	75.7
Childbirth -----	21	6.5	6.2
Diseases of early infancy -----	163	50.7	42.3
Suicide -----	57	17.7	19.2
Other violence -----	259	80.6	103.0
All other causes -----	121	37.6	35.1



In October there were 451 deaths, or 14.0 per cent of all, from diseases of the circulatory system; 379, or 11.8 per cent from the various forms of tuberculosis; and 370, or 11.5 per cent from diseases of the nervous system. The deaths from heart disease exceeded those from tuberculosis by only 72.

Other notable causes of deaths for the month were as follows: Diseases of the digestive system, 348; deaths from violent causes (suicide, accidents, etc.), 316; Bright's disease and nephritis, 287; cancer, 256; and epidemic diseases, 82.

The deaths from epidemic diseases were as follows: Typhoid fever, 23; diphtheria, 20; whooping cough, 9; malarial fever, 7; scarlet fever, 7; and other epidemic diseases, 16.

The deaths from the three leading epidemic diseases reported for the month were distributed by counties as follows:

Typhoid fever		Diphtheria		Whooping cough	
Butte	2	Alameda	3	Humboldt	1
El Dorado	1	Fresno	1	Los Angeles	1
Fresno	2	Kings	1	San Bernardino	1
Kern	1	Los Angeles	6	San Francisco	5
Los Angeles	6	Mendocino	1	Sonoma	1
Mendocino	1	Modoc	1		
Sacramento	2	Sacramento	1		9
San Diego	2	San Diego	1		
San Francisco	2	San Francisco	3		
San Joaquin	1	Tulare	2		
Santa Barbara	2				
Santa Clara	1		20		
	<hr/> 23				

*Sex, Race and Nativity.* The proportion of the sexes among the 3,215 decedents for October was: Male, 1,995, or 62.1 per cent; and female, 1,220, or 37.9 per cent.

The race distribution of decedents was: White, 3,029, or 94.2 per cent; Japanese, 69; Chinese, 68; Negro, 38; and Indian, 11.

The 3,029 white decedents were classified by nativity as follows: California, 825, or 27.2 per cent; other states, 1,080, or 35.7 per cent; foreign countries, 1,043 or 34.4 per cent; and unknown, 81, or 2.7 per cent.

*Infant Mortality.* There were 371 deaths for children under 1 year, which were distributed by age in months as follows: Under 1 month, 170, or 45.8 per cent; 1 to 2 months, 57, or 15.4 per cent; 3 to 5 months, 68, or 18.3 per cent; 6 to 11 months, 76, or 20.5 per cent.

In certain cities and counties the deaths under 1 year were as follows: Los Angeles City, 46; rest of Los Angeles County, 32; San Francisco, 42; Oakland, 18, and rest of Alameda county, 11.

The 371 deaths under 1 year, in comparison with the 4,508 live births reported for the month, represent an infant mortality ratio of 82 per 1,000 births.



## REPORT OF THE BUREAU OF SANITARY ENGINEERING FOR NOVEMBER, 1917.

By C. G. GILLESPIE, C.E., Director.

### Resume of Chlorination and Filtration of Water Supplies for 1917.

Ten cities and towns adopted chlorination in 1917, making thirty-six cities and towns in California now supplied with chlorinated water. As most of the first twenty-six included the large cities, the population now supplied with chlorinated water has not been materially increased and still amounts to approximately 1,000,000 people, one-half of the urban population of the state. Twelve plants which have been in operation for a year or more, from which ten or more samples of chlorinated water have been obtained, show that 89 per cent of the samples are safe and that in 11 per cent of the samples chlorination has been ineffective. The lowest percentage of effectiveness of chlorination obtains at El Centro, 58 per cent. The highest is obtained at Eureka, National City, Sacramento and St. Helena. The largest number of samples, 125, were submitted by the East Bay Water Company of Oakland, Alameda and Berkeley and indicate that chlorination has been 95 per cent reliable. For the sake of comparison, the communities are listed below:

*Tabulation Showing Reliability of Chlorination in Communities in California Where Same Has Been in Use One or More Years.*

	Total tap samples collected-----	Per cent show- ing safety-----	Per cent show- ing ineffective chlorination-----	Source of raw water	Condition of raw water
Alameda-Oakland-Berkeley	125	95	5	Impounding reservoirs--	Fair
Antioch -----	27	87	13	San Joaquin River-----	Very bad
Benicia -----	27	96	4	Impounding reservoir--	Fair
El Centro -----	24	58	42	Ditch water -----	Very bad
Eureka -----	100	27	-----	Elk River -----	Very bad
National City -----	21	100	-----	Impounding reservoir--	Fair
Pittsburg -----	31	65	35	San Joaquin River-----	Very bad
Redding -----	25	80	20	Sacramento River -----	Fair
Sacramento -----	14	100	-----	Sacramento River -----	Very bad
San Jose -----	11	91	9	Impounding reservoir--	Fair
Santa Barbara -----	11	91	9	Wells -----	Bad
St. Helena -----	10	100	-----	Impounding reservoir--	Fair

A conclusion is evident from this comparison which impresses one in making an inspection of chlorination plants about the state, viz, that most of the operators of the plants are incapable of making chlorination effective—either through lack of experience or application. The conclusion is more and more forcing itself that a periodic inspection by the bureau and a periodic report of the operation of the plants by the operators themselves are necessary to increase the reliability of the process.

Filtration has made some headway which, compared to that of the past, is encouraging. El Centro has recently voted favorably on a bond issue to construct a high grade filter, which will make the second good filter in the state. In the past, filtration has been limited to a few unsatisfactory pressure filter installations.

The Sanitary Water Systems Act is now amended to afford the legal machinery for obtaining clean, clear and safe water. By it the State Board of Health may order filtration if it finds that the same is necessary to make the supply clean, wholesome, pure and safe for domestic use and that no satisfactory alternative supply is available.



Though we are somewhat more backward than most states in the introduction of modern water filtration, the standards of the state are fully as high as those elsewhere. The future outlook for great improvements, aiming at sparkling clear, safe water in all California, is bright.

#### **First Hearing Held Under the New Sanitary Water Systems Act.**

On November 15 the State Board of Health held its first hearing under the new Sanitary Water Systems Act. The City of Los Banos was first to invoke the new procedure. A large amount of documentary evidence was taken in the case by Dr. W. A. Sawyer, Secretary of the State Board of Health, sitting as Examiner. Decision has not yet been rendered.

### **SEWAGE DISPOSAL.**

#### **Applications for Permit Filed.**

*San Buenaventura.* To construct and operate Imhoff tank.

*Santa Barbara County Farm.* To install Imhoff tank with subsurface filter.

#### **Permits Granted—None.**

#### **Plans Filed**

*Santa Barbara County.* Sewage disposal at County Farm.

*San Diego.* Sewerage of University Heights District.

*Ventura.* Imhoff tank and changes proposed in sewer system.

#### **Investigations, Inspections, Reports and Conferences.**

*Paso Robles.* November 18. Imhoff tank, with disposal into the Salinas River, working badly. No inlet baffles are provided and flowing-through chambers are characterized by heavy scum. Effluent is poorly clarified and highly odorous.

*Atascadero.* November 18. Sewerage is provided for civic center buildings. The works include a small Imhoff tank and subsurface disposal system about 500 feet in length placed in trenches 5 feet deep. The soil is sedimentary and has frequent gravel pockets, making the disposal quite successful. The tank shows lack of care in that a heavy scum has accumulated on the surface of the settling chamber.

*San Luis Obispo.* November 19. New 50-acre sewer farm receiving septic tank effluent appears to be successfully managed. Sewage is brought to the farm in a header flume about five feet above ground and distributed through irrigation pipe distributors laid on the surface. Point of application is changed as often as necessary, sometimes several times a day. Sewage clogging is entirely obviated.

*Santa Maria.* November 19. Imhoff tank working badly. Heavy putrefying deposits in the settling chamber result in excessive scum and inferior clarification. Causes seem to lie in inadequate sludge removal, resulting in closing of slot, and insufficient attention to scrape down the sides of settling chamber. From statistics it appears that only one-tenth the sludge was withdrawn which may be expected to be deposited.

*Cold Springs Tavern, Santa Barbara County.* November 20. Inspection made on complaint that cesspool overflows into creek; found this not to be the case.

*Long Beach.* November 22. The Riensch-Wurl screen installed in 1915, disposing of the effluent into the Pacific Ocean about one thousand feet from shore, has been successful in eliminating beach nuisance. The brass screen plate is beginning to show considerable wear and will soon need replacement. Experiment with composting the screenings has been tried with indications of this being a successful mode of disposal. About six inches of sand were used as a compost cover. Superintendent contemplates experimenting with a small press with a view to reducing the moisture content of screenings prior to incineration or composting. It is stated that it is necessary to by-pass the sewage twice a year for about one week to overhaul the plant.



*Compton.* November 22. Sewage treatment works consist of Imhoff tank with duplicate flowing-through chambers, dosing tank and triplicate contact beds filled from below, with disposal into Compton Creek. Sewage is pumped to the Imhoff tank but the inlet is not symmetrical and one of the flowing-through chambers receives the bulk of the flow. The velocity of the incoming current disturbs the settling chamber excessively and clarification is inferior. Contact bed effluent shows a three-hour methylene blue stability. Contact bed media has too much fine material, much of it sand.

*Ventura, State Home for Girls.* November 20. Inspection made to overcome necessity for use of sewage to water garden vegetables.

*Beverly Hills.* November 23. Treatment works consists of septic tank built some time ago, pumping plant, dosing tank and sprinkling filter, with disposal into Sawtelle Creek. Sprinkling filter installation was made in 1916. On date of inspection it was not in use. It apparently is capable of giving good results. Filter media, however, seems to contain considerable shale and rock subject to air weathering, with the result that the bed is beginning to choke up with fine material.

*Santa Monica.* November 23. Sewage treatment works consist of centrifugal pumping plant and electrolytic process. Solids are considerably emulsified by the pumps but otherwise the treatment accomplishes no evident improvement.

*Chino.* November 24. Sewage is clarified in an Imhoff tank, disposed of onto low, underdrained sewer farm. There is evidence of too little attention both to the Imhoff tank and the farm. Nevertheless, the effluent is fairly clear and no nuisance is apparent.

*Ontario.* November 24. Sewage is disposed of without treatment on an extensive isolated farm of various sandy soil, owned by the city and leased to private parties. The farm is planted to peach orchard.

*Colton.* November 24. Sewage is disposed of on privately-owned sewer farm of various sandy soils along the Santa Ana River. The farm is excellently isolated. Sewage is disposed of in the crude state to water crops of barley, sweet corn, beans and potatoes. There is some question about the propriety of watering potatoes with sewage.

*San Bernardino.* November 24. Sewage is disposed of on a privately-owned sewer farm of about 500 acres of sandy soil along Santa Ana River, planted to orchard and alfalfa. Sewage and well water are mixed for irrigation. Vegetables raised on the farm are watered only with well water and care is taken to see that sewage never flows into the ditches carrying irrigation water for the vegetables.

*Anaheim.* November 29. Sewage is disposed of to water orange orchards after clarification in Imhoff tank. Clarification is inferior but method of distribution of sewage in furrows and subsequent cultivation makes disposal quite successful.

*Orange.* November 29. Septic tank reconstructed about two years ago into an Imhoff tank with wooden partitioning; quite successful in solving sludge disposal problem and in reducing odor in effluent. Excessive scum on settling chamber results in poor clarification.

*Orange County Hospital.* November 29. Sewage is passed through an Imhoff tank and pumped to waste land in bottom of river. Heavy scum on flowing-through chamber and clarification imperfect.

*Fullerton.* November 29. Sewage disposal by treatment in Imhoff tank and application to sewer farm planted to hay. Poor design of tank and manipulation result in inferior clarification and considerable odor. Flowing-through chambers nearly square and cross-currents pronounced.

*Whittier.* November 29. Septic tank was reconstructed in 1916 into an Imhoff tank principle. Sludge is removed through a series of outlets laid on floor of original septic tank. Fairly well digested, drainable and odorless sludge has been obtained. Considerable difficulty has been experienced with frothing. Excessive scum accumulates on settling chambers. Disposal is on land, grossly neglected. Nuisances complained of for distance of half a mile. Indications are that the city requires installation of modern appliances, possibly drainage of sewer farm or abandonment for disposal on land more favorably situated.



*Pasadena.* November 30. The experimental activated sludge plant was thoroughly inspected. Exceedingly gratifying results are now being obtained with one cubic foot of air per gallon of sewage. The effluent is surprisingly clear and bacterial efficiency of the plant is high. Unusual stability of effluent is obtained. Good results are also obtained from experimental sprinkling filter, but clarification does not compare with that of the activated sludge plant. The experimenters have devised a very unusual scheme of screening the sewage, consisting of a number of stationary upright spikes in the depressed bottom of the channel carrying the raw sewage. The points project through a board set flush with the bottom of the channel. Screenings accumulate around the points. To remove screenings the board is hoisted above the water level by levers, screenings scraped off and board replaced. In case the points clog excessively, the crude sewage passes over them without building up an excessive loss of head or overflowing.

*Kingsburg.* December 1. The city contemplates asking permission of State Board of Health to discharge sewage into Kings River. During periods of low flow, disposal will be on sand flats along the river. The city has been advised that sprinkling filter treatment will be required for the domestic sewage and clarification of the winery, cannery and other industrial wastes. This is acceptable to the city and it is now proceeding to have detailed plans prepared.

*Reedley.* December 1. Sewage works consist of Imhoff tank and sprinkling filter installation. The works are not receiving their accustomed attention. As a result the sprinkler nozzles are badly clogged. Stability of effluent is not satisfactory. The operator has cut through a sand bar receiving the effluent so that the waters of the river are polluted directly. Notice has been served that operation of the plant must be improved and the sewage confined to the sand bar, in accordance with terms of the permit to the city.

*Tulare.* December 1. Sewage is disposed of after passage through a septic tank, which appears to be excessively clogged, onto low-lying ground on the city's 80-acre sewer farm. The appearance of the farm is one of gross neglect, as the sewage accumulates in pools over several acres.

*Ducor.* December 1. This community contemplates a sewer system to serve at least the business portion of the town. Disposal of sewage must necessarily be on land. The site selected is about one-half mile from town. The soil conditions are not favorable for getting rid of the sewage. It appears that it will be difficult to avoid nuisance at the outlet.

*Calwa, Santa Fe R. R. Shops.* December 2. The sewage treatment works, consisting of Imhoff tanks, pumping station and contact beds filled from below and chlorinator are being excellently managed.

*Calwa, Universal Packing Company.* This is a new establishment for packing meat products. An excessive amount of highly putrefying waste is produced. Treatment now consists of settling in a septic tank and disposal by broad irrigation on land. Extreme nuisance results.

*Crockett.* November 30. Reinspection of outfall sewer, following complaint of nuisance on mud flats. Vitrified sewer pipe was carried on trestling to which it was anchored. Tides and wave action have loosened many of the joints and gravel entered, blocking the sewer. Repair is being made by the board of supervisors but the outfall is not being extended to high tide and additional extension may be necessary.

*Merced Falls.* November 18 to 22. Test of sewage chlorinator made to determine sufficiency of chlorine dose. Septic tank effluent is chlorinated, passing thence through a small contact chamber to the Merced River. Tests indicate that a dose of 48 pounds chlorine per million gallons is effective.

## WATER SUPPLIES.

### Applications for Permit Filed.

*South San Francisco, South San Francisco Water Company.* To continue to furnish water to South San Francisco from ten artesian wells.

*City of El Centro.* To construct modern filtration plant.



## Permits Granted—None.

## Plans Filed—None.

## Investigations, Inspections, Reports and Conferences.

*Cabazon.* November 6. Water for irrigation and domestic uses derived from Millard Canyon. Supply is subject to practically no human contamination, but carries silt and debris at times, which gives rise to complaints. Settling reservoirs have been recommended.

*Banning.* November 6. Water supply derived from San Gorgonio River and from wells at lower end of San Gorgonio Canyon. Winter run-off from watershed is conserved by artificially sinking it in gravel deposits at upper end of canyon. Watershed is owned entirely by water company and the government and is policed by government forest rangers. Opportunity for contamination appears to be slight.

*Los Angeles.* November 13 and 22. Collected samples from San Fernando and Franklin reservoirs of the Owens River supply.

*Brawley.* November 25. Reinspection of water plant. Supply derived from Colorado River and settled before delivery to consumers. As stated in last report, the plant is well maintained but more complete purification is needed.

*San Luis Obispo.* November 19. Inspection reveals that the city has discontinued use of the chlorinator. Analysis of the water indicates gross contamination. The city has been directed to immediately restore the operation of the chlorinator.

*Arroyo Grande, Midland Counties Public Service Corporation.* November 19. The water is supplied principally from a well. The well is subject to hydrogen sulphide odors but the installation of crude aerators at the reservoir has eliminated this source of complaint. However, the capacity seems to be inadequate and the company has reverted to the polluted Arroyo Grande Creek water, without treatment, in spite of the warning of danger in the supply. Accordingly, the company has been notified to provide for the chlorination of this supply or to discontinue its use entirely.

*Callexico.* November 26. The water supply is obtained from the irrigation system and is exceedingly turbid. It is first settled in basins and then filtered in a slow sand filter employing the Blaisdell washer. Inferior results in clarification have recently prompted complete overhauling. The principle of the washer is the jetting of the wash water below the sand surface and pumping off the supernatant wash water. A combination of circumstances seems to have been responsible for the inferior results: (1) The filters have been washed occasionally by intoxicated operators who run the washer without shutting down the filter, with the consequence that the dirty water filled the underdrain system of the filter. (2) It appears to be inherent in the washer that a silt stratification occurs just below the washer points. As the washing in the past has been deep, the stratification took place so close to the underdrains as to escape from the filter easily. (3) The use of horizontal jets on the washer teeth nearest the side walls seems to result in the sand falling away from the walls, allowing space for unfiltered water to pass into the underdrain system. (4) The wash water pumps are too large and clear water storage is so small that the rate of filtration is excessive and is repeated with too great a frequency for good results. (5) Washings in the past have been performed with unnecessary frequency, sometimes twice a day, whereas experience has shown that the filter can run as much as three weeks without washing.

The reconstruction provides for making the washer machine jets more substantial and providing agitators for better washing. Principal recommendations made were that washings be performed only when loss of head or appearance of turbidity in the effluent warrant it and to wash the sand bed not over six inches deep as a regular procedure, with deeper washings only when stratification below the jets becomes pronounced and deep washings to be preceded by thorough washings of the sand layers above.

*El Centro.* November 26. Plans are being prepared for a filter of the Blaisdell type and excavation for the work has been begun.



*Oakland, Berkeley, Alameda, etc., East Bay Water Company.* November 21 to 28. Preliminary inspection of the system was made in connection with future action on permit. Main sources are San Leandro Lake, Lake Temescal, and Alvarado wells; secondary sources, various tunnels in hills back of Oakland and Berkeley, Fitchburg wells, San Pablo wells, Richmond wells and Wildcat wells. Main reservoirs are Central, capacity 135 million gallons, Berryman, capacity 25 million gallons, Summit, 38 million gallons, and Claremont. There are also numerous small receivers and equalizing reservoirs. The surface water supplies are filtered and chlorinated. Ground water sources are well protected from contamination.

*Merced Falls.* November 17 to 19. Test made of the chlorinator. The water supply is obtained from the grossly polluted Merced River, chlorinated and filtered. Filters are pressure type and of little value. During the test chlorination was effective in obtaining continuous sterilization at a dose of two pounds chlorine per million gallons. Overdosing has been experienced with attendant tastes, due to wide fluctuation in water consumption without corresponding change in chlorine feed. Chlorinator is set to disinfect at highest rate of pumpage. No record of operation whatever is kept. The board will insist on obtaining such a record in the future.

#### Sanitary Survey of Merced River.

November 15 to 22. An exhaustive survey of sanitary conditions along the Merced River from El Portal to Merced Falls, on which eighty inspections were made, indicates an extremely low standard of sanitation, innumerable sources of minor river pollution and some particularly important points of pollution, namely at Mountain King where numerous sewers empty directly into the river. Elsewhere, privies dangerously close to the river are numerous. Water supplies are obtained from springs and also from the Merced River.

#### Camp Fremont.

Resampling of private wells in the vicinity of the camp for the purpose of demonstrating any effect of the army latrines, indicates no contamination.

#### Camp Kearny.

The sewage of the camp is directed into septic tanks and chlorinated prior to discharge into a dry, sandy wash. The flow is so excessive that the sewage does not disappear for five miles down this wash. As it passes through uninhabited country, no complaint has been occasioned.

Garbage disposal of the camp is unique and successful, being the first extensive hog ranch for garbage disposal in California. Hogs are kept in pens with a small range ground without waterholes. Feeding is done on wooden platforms surrounded with curbing. Vegetable garbage is fed raw. Meat products are cooked in a steam cooker and the grease recovered. The cooking also removes any source of nuisance. All hogs are vaccinated twice against cholera, giving what is said to be permanent immunization. Cans are thoroughly brushed and steamed before being returned to camp. Flies were excessive at some of the points but it is planned to wage a fly extermination campaign to get rid of accumulation of garbage and destroy the flies, using a solution of borax. There are about 5,000 hogs for 25,000 troops, but this number is found to be a little too high and it is intended to reduce the number to 4,000. Soil conditions are sandy and drainage is good, adding considerable to the success of the farm.

#### Laboratory.

In the course of an inspection through the south, laboratory methods at Santa Barbara and San Diego were looked into. The city of San Diego employs standard and recognized technique. Laboratory arrangements at Santa Barbara are to be condemned seriously. The city has an agreement with a local hospital whereby the pathologist makes occasional analyses of the water. As the position changes hands frequently and is beyond the control of the city, the method of distinguishing *B. coli* has degenerated into an inspection of colonies on plain Agar plate and is practically valueless.



The laboratories of the San Jose Water Company and the California-Hawaiian Sugar Company sent representatives to the laboratory of the bureau during the month, to become familiar with the methods used.

The Los Angeles laboratory of the Bureau of Communicable Diseases has now added water bacteriology to its work and henceforth analyses of water supplies in the southern part of the state will be handled from that laboratory. Requests for analyses should be directed to Mr. Ralph Hilscher, Engineer in Charge Southern Branch, 210 Union League Building, Los Angeles.

### LABORATORY WORK.

Bacteriological examinations of water—198, of which 116, or 59 per cent, showed contamination.

Chemical examinations of water (partial)—216.

Sanitary chemical examination of water—1.

Bacteriological examination of sewage—1.

Sand analyses—2.

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## REPORT OF THE BUREAU OF FOODS AND DRUGS FOR NOVEMBER, 1917.

E. J. LEA, M.S., Director.

During the month of November 444 samples of foods, drugs and miscellaneous materials were received at the laboratory.

The official samples consisted of beverages, bread, butter, cheese, chocolate, coffee, condiments, confectionery, cream, eggs, egg substitutes, extracts, fish, flour, fruit, gelatine, ice cream, jelly, lard, liquors, meats, milk, molasses, nuts, salad oils, oleomargarine, preserves, spices, sugar, syrups, vegetables, vinegar and water. The drug samples consisted of acid aceto-salicylic, alcohol, camphorated oil, extract cascara, tincture of iodine, blue ointment, paregoric, sweet oil and veronal tablets.

The unofficial samples consisted of barley, beans, beer, bread, cake, cheese, chocolate, coffee, condiments, extracts, feed, fig cereal, fish, fruit, gelatine, liquors, meat paste, nuts, olives, sugar, vegetables and water; one drug sample of spirits of camphor was also received.

State institutions sent in samples of barley, beans, coffee, flour, spaghetti, syrup, tea, ammonia and tallow.

### Tomatoes.

The tomato season this year has been unusually satisfactory, owing to the excellent weather. The majority of the canneries closed about the end of November, but several continued two or three weeks in December.

A very high percentage of this year's tomato pack consisted of excellent material, but toward the close of the season some canners worked up moldy, rotten and sour stock which should have been discarded. During the last few weeks this bureau has seized more than thirty loads of tomatoes from the field. Most of these tomatoes were returned to the growers for hog feed. We also seized a number of lots of tomato puree, tomato paste, etc., which had been made from bad tomatoes. Some of these lots contained over 50,000 cans. Representative samples of these lots will be examined carefully before finally passing on the stock.

### Confectionery.

Several samples of confectionery, artificially colored and artificially flavored in imitation of natural products have been examined this month. Harmless artificial colors and flavors are permissible, provided they are not used to imitate natural products: for instance, candy colored red with coal tar dye and artificially flavored should not be sold as raspberry drops. However, it may be sold if properly labeled "imitation raspberry drops."



**Eggs.**

As the season for high prices for eggs progresses we find the usual practice prevails of selling stale, or cold storage, eggs for fresh eggs. Certain dealers mix cold storage eggs with fresh eggs, often including a few old, stale, or even rotten eggs in the pack.

**Liquors.**

In October two inspectors of this department were detailed on liquors in the southern part of the state. The liquors in this territory had never been systematically covered before. As a result of this inspection about one hundred and fifty samples of adulterated liquors were collected in about three weeks. There is still more liquor territory to be inspected.

**Spices.**

Shortly after the pure food law was passed in this state in 1907, an extensive campaign was made on spices. At this time many manufacturers were mixing as high as 60 per cent of roasted flour or cocoanut shells in their various spices. This practice has been largely discontinued in respect to the small cans for family trade. However, we still find that many bakers, butchers, restaurant and cafe proprietors are being defrauded in this manner. Frequently the manufacturer protects himself by labeling his product "Pepper and Cereal," or "Mustard and Cereal," etc., but through carelessness or ignorance the consumers do not realize that they are getting an adulterated article. Many samples of highly adulterated pepper have been recently collected from restaurants and cafes. The proprietors of such places are liable for this practice, unless they can show a guaranty indicating that this stock was purchased by them from the wholesaler as pure spice. It appears to be good economy for bakers, butchers and others using bulk spices to look into the purity of these articles. In other words, it is poor economy to pay a spice price for roasted flour, ground cocoanut shells or ground rice hulls.

**ARTICLES OF FOOD CONDEMNED.**

The following articles of food, condemned upon physical and chemical examination as unfit for food, were either destroyed or denatured during the month of November, 1917: Beans, 2 jars, coppered, Oakland; cheese, 750 pounds, decomposed, San Francisco; catsup, 2 barrels, fermented, Mountain View; condiments, miscellaneous, 130 bottles, moldy and decomposed, San Francisco; currants, dried, 50 pounds, moldy and decomposed, Marysville; gelatine, 1,520 pounds, decomposed, San Francisco; olives, 22 bottles, moldy and decomposed, San Francisco; peanuts, 85 pounds, rancid and moldy, Vallejo; sardines, 27 cans, decomposed, Los Angeles; tomatoes, 20,900 pounds, decomposed and overripe, San Jose; walnut meats, 50 pounds, wormy and rancid, San Francisco; walnut meats, 515 pounds, rancid, wormy and shriveled, Los Angeles.

**CONVICTIONS UNDER FOODS AND DRUGS ACTS, REPORTED DURING NOVEMBER, 1917.**

Brandy, adulterated and mislabeled, B. Gere, San Francisco, fined \$10; brandy, adulterated and mislabeled, Joe de Bonis, Vallejo, O. R.; catsup, adulterated and mislabeled, Chris Isangamiles, Vallejo, fined \$5; gin, adulterated and mislabeled, A. Cobrol, Suisun, fined \$25; gin, adulterated and mislabeled, John Rose, Walnut Creek, fined \$25; gin, adulterated and mislabeled, Fred Gerken, San Francisco, O. R. 6 months; gin, adulterated and mislabeled, J. C. Murphy, Suisun, fined \$25; gin, adulterated and mislabeled, W. S. Burpee, Walnut Creek, fined \$10; gin, adulterated and mislabeled, G. O. Darrow, Centerville, fined \$10; gin, adulterated and mislabeled, Pashote Bros., Milpitas, fined \$25; gin, adulterated and mislabeled, M. Miller, Pinole, fined \$5; gin, adulterated and mislabeled, David Cohn, Oxnard, fined \$10; meat, chopped, adulterated, E. Doughty, Menlo Park, fined \$50; meat, chopped, adulterated, Thomas Tuite, Redwood City, fined \$50; \*oranges, adulterated and mislabeled, Hunt, Hatch & Co., Oakland, fined \$10; oyster cocktail, adulterated and mislabeled, Bohemian Cocktail and Supply Co., Inc., San Francisco, fined \$10; peppermint, essence of, adulterated and mislabeled, Lorenzo Guidoni, San Pedro Valley P. O., fined \$25; strawberries, adulterated and mislabeled, Hunt, Hatch & Co., Oakland, fined \$5; whiskey, adulterated and mislabeled, David Cohn, Oxnard, fined \$15; whiskey, adulterated and mislabeled, Ed Hyatt, Cordelia, fined \$25.

\*Referred on two counts.



### CASES REFERRED TO DISTRICT ATTORNEYS.

The State Board of Health, at the November meeting, referred to district attorneys the following cases for prosecution: Palm Saloon, Healdsburg; S. S. Hildreth, Miller & Leddey, Paul Alaga, Watsonville; Rose Bar, Cleaveland & Schurmann, Santa Rosa; Lynn & Lynn, Frank Spitts, Frank Nunes, McCloskey & Hargous, Gossler & Company, Hollister; R. Doughty, Menlo Park; Theo Gier Wine Co., Armour & Company, Oakland Pioneer Soda Water Company, Newman, Korn & Company, United Canneries Company, Oakland; Pioneer Pharmacy, Bay Restaurant, Swalley & Duffy, Sacramento; Andy Balich, Santa Cruz; Danemark Bros., W. G. Salter, Smith-Robertson Co., Trask & Reineger, Club Bottling Co., Schwartz Ginger Ale Company, B Winther, Frank P. Burgess, California Canneries Co., Tivoli Paste Company, Chas. C. Enkle, Pacific Buchu Gin Company, San Francisco; J. and F. Scapin, E. P. Jones, B. H. Probst, Y. Tagata, Colusa; Charles Hope, Truckee; Palace Market, Capitol Market, Redwood City; California Market Company, Pioneer Market, Taft; Aiello Brothers, San Jose; Food Supply Company, Los Angeles; Hotel Penngrove Bar, Penngrove.

### FOOD INSPECTION DECISION 171.

**Macaroni, Spaghetti, Vermicelli, Flour Macaroni, Flour Spaghetti, and Flour Vermicelli.**

The following definitions and standards for macaroni, spaghetti, vermicelli, flour macaroni, flour spaghetti, and flour vermicelli were adopted by the Joint Committee on Definitions and Standards, November 18, 1916, and were approved by the Association of Official Agricultural Chemists, November 22, 1916, and by the Association of American Dairy, Food, and Drug Officials, August 3, 1917:

*Macaroni, spaghetti, vermicelli* are dried pastes made of the semolina of hard wheat.

They contain not more than thirteen and one-half per cent (13.5%) of moisture.

*Flour macaroni, flour spaghetti, flour vermicelli* are dried pastes made of flour or of a mixture of flour and semolina.

They contain not more than thirteen and one-half per cent (13.5%) of moisture.

The foregoing definitions and standards are adopted as a guide for the officials of this department in enforcing the Food and Drugs Act.

## REPORT OF THE BUREAU OF REGISTRATION OF NURSES FOR NOVEMBER, 1917.

ANNA C. JAMMÉ, R.N., Director.

At the regular meeting of the board, held December 1, 185 nurses were granted the certificate as Registered Nurse. These were the successful applicants, out of 236 who took the examination given on October 17 and 18.

The schools of nursing represented in those passing among the ten highest are—

Massachusetts General Hospital, Boston:

Parks, Helen A. Class of 1910.

Paradise Valley Hospital, National City, Cal:

Owen, Florence A. Class of 1917.

Mt. Zion Hospital, San Francisco:

Combs, Kathryn. Class of 1917.

East Sussex Hospital, Hastings, England:

Eady, Muriel. Class of 1914.

University of California Hospital, San Francisco:

Pickering, Mary M. Class of 1916.

Pasadena Hospital, Pasadena, Cal.:

Cottrell, Nell. Class of 1917.

St. Helena Sanitarium, Sanitarium:

Livingston, Helen. Class of 1917.

Los Angeles Infirmary, Los Angeles:

Keppel, Ella. Class of 1917.

Providence Hospital, Seattle, Washington:

Quinn, Margaret A. (Sister Laurienne) Class of 1907.

German Hospital, San Francisco:

Headland, Violet Maud. Class of 1917.



**Eggs.**

As the season for high prices for eggs progresses we find the usual practice prevails of selling stale, or cold storage, eggs for fresh eggs. Certain dealers mix cold storage eggs with fresh eggs, often including a few old, stale, or even rotten eggs in the pack.

**Liquors.**

In October two inspectors of this department were detailed on liquors in the southern part of the state. The liquors in this territory had never been systematically covered before. As a result of this inspection about one hundred and fifty samples of adulterated liquors were collected in about three weeks. There is still more liquor territory to be inspected.

**Spices.**

Shortly after the pure food law was passed in this state in 1907, an extensive campaign was made on spices. At this time many manufacturers were mixing as high as 60 per cent of roasted flour or cocoanut shells in their various spices. This practice has been largely discontinued in respect to the small cans for family trade. However, we still find that many bakers, butchers, restaurant and cafe proprietors are being defrauded in this manner. Frequently the manufacturer protects himself by labeling his product "Pepper and Cereal," or "Mustard and Cereal," etc., but through carelessness or ignorance the consumers do not realize that they are getting an adulterated article. Many samples of highly adulterated pepper have been recently collected from restaurants and cafes. The proprietors of such places are liable for this practice, unless they can show a guaranty indicating that this stock was purchased by them from the wholesaler as pure spice. It appears to be good economy for bakers, butchers and others using bulk spices to look into the purity of these articles. In other words, it is poor economy to pay a spice price for roasted flour, ground cocoanut shells or ground rice hulls.

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\*Referred on two counts.



### CASES REFERRED TO DISTRICT ATTORNEYS.

The State Board of Health, at the November meeting, referred to district attorneys the following cases for prosecution: Palm Saloon, Healdsburg; S. S. Hildreth, Miller & Leddey, Paul Alaga, Watsonville; Rose Bar, Cleaveland & Schurmann, Santa Rosa; Lynn & Lynn, Frank Spitts, Frank Nunes, McCloskey & Hargous, Gossler & Company, Hollister; R. Doughty, Menlo Park; Theo Gier Wine Co., Armour & Company, Oakland Pioneer Soda Water Company, Newman, Korn & Company, United Canneries Company, Oakland; Pioneer Pharmacy, Bay Restaurant, Swalley & Duffy, Sacramento; Andy Balich, Santa Cruz; Danemark Bros., W. G. Salter, Smith-Robertson Co., Trask & Reiniger, Club Bottling Co., Schwartz Ginger Ale Company, B Winther, Frank P. Burgess, California Canneries Co., Tivoli Paste Company, Chas. C. Enkle, Pacific Buchu Gin Company, San Francisco; J. and F. Scapin, E. P. Jones, B. H. Probst, Y. Tagata, Colusa; Charles Hope, Truckee; Palace Market, Capitol Market, Redwood City; California Market Company, Pioneer Market, Taft; Aiello Brothers, San Jose; Food Supply Company, Los Angeles; Hotel Penngrove Bar, Penngrove.

### FOOD INSPECTION DECISION 171.

**Macaroni, Spaghetti, Vermicelli, Flour Macaroni, Flour Spaghetti, and Flour Vermicelli.**

The following definitions and standards for macaroni, spaghetti, vermicelli, flour macaroni, flour spaghetti, and flour vermicelli were adopted by the Joint Committee on Definitions and Standards, November 18, 1916, and were approved by the Association of Official Agricultural Chemists, November 22, 1916, and by the Association of American Dairy, Food, and Drug Officials, August 3, 1917:

*Macaroni, spaghetti, vermicelli* are dried pastes made of the semolina of hard wheat.

They contain not more than thirteen and one-half per cent (13.5%) of moisture.

*Flour macaroni, flour spaghetti, flour vermicelli* are dried pastes made of flour or of a mixture of flour and semolina.

They contain not more than thirteen and one-half per cent (13.5%) of moisture.

The foregoing definitions and standards are adopted as a guide for the officials of this department in enforcing the Food and Drugs Act.

## REPORT OF THE BUREAU OF REGISTRATION OF NURSES FOR NOVEMBER, 1917.

ANNA C. JAMMÉ, R.N., Director.

At the regular meeting of the board, held December 1, 185 nurses were granted the certificate as Registered Nurse. These were the successful applicants, out of 236 who took the examination given on October 17 and 18.

The schools of nursing represented in those passing among the ten highest are—

Massachusetts General Hospital, Boston:

Parks, Helen A. Class of 1910.

Paradise Valley Hospital, National City, Cal:

Owen, Florence A. Class of 1917.

Mt. Zion Hospital, San Francisco:

Combs, Kathryn. Class of 1917.

East Sussex Hospital, Hastings, England:

Eady, Muriel. Class of 1914.

University of California Hospital, San Francisco:

Pickering, Mary M. Class of 1916.

Pasadena Hospital, Pasadena, Cal.:

Cottrell, Nell. Class of 1917.

St. Helena Sanitarium, Sanitarium:

Livingston, Helen. Class of 1917.

Los Angeles Infirmary, Los Angeles:

Keppel, Ella. Class of 1917.

Providence Hospital, Seattle, Washington:

Quinn, Margaret A. (Sister Laurienne) Class of 1907.

German Hospital, San Francisco:

Headland, Violet Maud. Class of 1917.



The following table gives the names of the schools from which the different nurses graduated, the number who applied from each school and the number who passed:

Name of hospital	Number applying	Number passed
Alameda Sanitarium -----	1	0
Agnew Sanitarium -----	4	3
Alta Bates -----	2	0
Angelus Hospital -----	3	3
Buena Vista Sanitarium -----	5	3
California Hospital -----	6	6
Children's Hospital, San Francisco -----	10	7
Clara Barton Hospital -----	8	8
Cottage Hospital -----	1	1
Columbia Hospital -----	2	2
Sacramento County Hospital -----	2	1
County Hospital, San Diego -----	1	1
County Hospital, San Francisco -----	7	5
County Hospital, San Joaquin -----	3	2
County Hospital, Los Angeles -----	6	5
Dameron Hospital -----	1	1
Emergency and General Hospital -----	1	1
East Bay Sanitarium -----	1	1
Evans Hospital -----	1	0
Fairmont Hospital -----	2	1
Fabiola Hospital -----	2	1
German Hospital -----	19	12
Good Samaritan Hospital -----	6	4
Glendale Sanitarium -----	11	7
Hanford Sanitarium -----	2	2
Hahnemann Hospital -----	1	1
Loma Linda Sanitarium -----	7	7
Lane Hospital -----	4	3
Los Angeles Infirmary -----	4	4
Mercy Hospital -----	1	1
Methodist Hospital -----	4	4
Mt. Zion Hospital -----	13	10
Mater Misericordiae Hospital -----	5	3
O'Connor Sanitarium -----	2	2
Pasadena Hospital -----	8	8
Paradise Valley Sanitarium -----	8	7
Pacific Hospital -----	2	2
Peninsula Hospital -----	2	1
Pomona Valley Hospital -----	2	2
Providence Hospital -----	8	7
St. Helena Sanitarium -----	6	6
St. Luke's Hospital -----	3	2
St. Mary's Hospital -----	3	2
Samuel Merritt Hospital -----	7	3
St. Francis Hospital, San Francisco -----	8	7
St. Joseph's Sanitarium -----	2	2
San Antonio Hospital -----	2	1
University of California Hospital -----	9	8



# LIST OF COUNTY AND CITY HEALTH OFFICERS.

Alameda County—  
 Dr. J. Hal Cope—Pleasanton  
 Alameda—Dr. A. Hieronymus  
 Albany—Dr. J. F. Diddle  
 Berkeley—Dr. J. J. Benton  
 Emeryville—Dr. A. T. Drennan  
 Hayward—Dr. F. W. Browning  
 Livermore—Dr. J. K. Warner  
 Oakland—Dr. Kirby B. Smith  
 Piedmont—Dr. Benj. T. Mouser  
 Pleasanton—Dr. J. Hal Cope  
 San Leandro—Dr. Luther Michael  
 Alpine County—  
 Mr. Fred S. Dunlap—Markleeville  
 Amador County—  
 Dr. G. L. Lynch—Amador City  
 Jackson—H. E. Kay  
 Plymouth—W. J. Ninnis  
 Sutter Creek—W. A. Burres  
 Butte County—  
 Dr. L. L. Thompson—Gridley  
 Biggs—R. W. Simmons  
 Chico—W. H. Marshall  
 Gridley—Dr. L. Q. Thompson  
 Oroville—Dr. W. F. Gates  
 Calaveras County—  
 Dr. George F. Pache, Angels Camp  
 Angels Camp—Dr. E. W. Weirich  
 Colusa County—  
 Dr. G. W. Desrosier—Colusa  
 Colusa—Dr. G. W. Desrosier  
 Contra Costa County—  
 Dr. W. S. George—Antioch  
 Antioch—Dr. W. S. George  
 Concord—Dr. F. F. Neff  
 El Cerrito—Dr. J. F. Diddle  
 Hercules—C. T. Wetmore  
 Martinez—Dr. Edwin Merrithew  
 Pinole—Dr. M. L. Fernandez  
 Pittsburg—Dr. H. E. Peters  
 Richmond—Dr. Chas. R. Blake  
 Walnut Creek—Dr. C. R. Leech  
 Del Norte County—  
 Dr. E. M. Fine—Crescent City  
 Crescent City—Dr. E. M. Fine  
 El Dorado County—  
 Dr. S. H. Rantz—Placerville  
 Placerville—G. H. Wickes  
 Fresno County—  
 Dr. G. L. Long—Fresno  
 Clovis—Dr. M. S. McMurtry  
 Coalinga—Dr. C. W. Hutchison  
 Firebaugh—Dr. H. J. Greven  
 Fowler—Chas. Chapman  
 Fresno—Dr. C. Mathewson  
 Kingsburg—Dr. J. A. Gillespie  
 Reedley—Dr. Chas. H. Traber  
 Sanger—Dr. Thos. F. Madden  
 Selma—Dr. Fred H. Williams  
 Glenn County—  
 Dr. F. M. Lawson—Willows  
 Orland—Dr. S. Iglick  
 Willows—Dr. W. H. Walker  
 Humboldt County—  
 Dr. Joseph Walsh—Eureka  
 Arcata—Dr. G. W. McKinnon  
 Blue Lake—Dr. Earl W. Hill  
 Eureka—Dr. L. A. Wing  
 Ferndale—Dr. A. P. Griffin  
 Fortuna—Dr. Orville Rockwell  
 Imperial County—  
 Dr. R. K. McGuffin—Imperial  
 Brawley—Dr. Eugene Le Baron  
 Calexico—Dr. P. N. Sims  
 El Centro—Dr. F. A. Burger  
 Holtville—C. A. Johnston  
 Imperial—Dr. R. K. McGuffin  
 Inyo County—  
 Dr. I. J. Woodin—Independence  
 Bishop—John B. Clarke  
 Kern County—  
 Dr. C. A. Morris—Bakersfield  
 Bakersfield—Dr. P. J. Cuneo  
 Delano—Dr. J. R. Hicks  
 Maricopa—Dr. H. N. Taylor  
 McKittrick—Dr. Robert C. Dear  
 Taft—Dr. E. A. D. Jones  
 Tehachapi—Dr. N. J. Brown, Jr.

Kings County—  
 Dr. C. L. Scott—Hanford  
 Corcoran—Dr. J. T. Peery  
 Hanford—Dr. B. Robbins  
 Lemoore—Dr. W. P. Byron  
 Lake County—  
 Dr. W. E. Upton—Kelseyville  
 Lakeport—P. H. Millberry  
 Lassen County—  
 Dr. W. E. Dozier—Susanville  
 Susanville—Dr. F. D. Walsh  
 Los Angeles County—  
 Dr. J. L. Pomeroy—Los Angeles  
 Alhambra—Dr. F. E. Corey  
 Arcadia—Dr. Chas. D. Gaylord  
 Avalon—Dr. J. J. Peckham  
 Azusa—Dr. John E. Hill  
 Beverly Hills—Dr. Oscar H. Mueller  
 Burbank—Dr. E. H. Thompson  
 Claremont—Dr. F. W. Thomas  
 Compton—E. E. Elliott  
 Covina—Dr. J. D. Reed  
 Eagle Rock—Dr. C. H. Phinney  
 El Monte—Dr. S. L. Corpe  
 El Segundo—R. F. Davis  
 Glendale—Dr. R. E. Chase  
 Glendora—Dr. L. N. Suydam  
 Hermosa Beach—B. F. Brown  
 Huntington Park—Dr. W. Thompson  
 Inglewood—Dr. W. W. Reber  
 Long Beach—Dr. R. L. Taylor  
 Lordsburg—Dr. J. E. Hubble  
 Los Angeles—Dr. L. M. Powers  
 Manhattan Beach—Llewellyn Price  
 Monrovia—Dr. Chas. D. Gaylord  
 Monterey Park—Dr. J. S. Trehwella  
 Pasadena—Dr. Stanley P. Black  
 Pomona—Dr. N. J. Rice  
 Redondo Beach—Dr. D. R. Hancock  
 San Fernando—Dr. Benj. B. Ward  
 San Gabriel—Dr. Ruth Purcell  
 San Marino—Dr. W. LeMoyne Wills  
 Santa Monica—Dr. F. J. Wagner  
 Sawtelle—Dr. A. B. Hromadka  
 Sierra Madre—Dr. R. H. Mackerras  
 South Pasadena—Dr. C. F. Metcalf  
 Tropic—Dr. Wm. C. Mabry  
 Venice—Dr. W. M. Kendall  
 Vernon—Dr. L. J. Williams  
 Watts—Dr. E. J. Riche  
 Whittier—Dr. W. H. Stokes  
 Madera County—  
 Dr. L. St. John Hely—Madera  
 Madera—Dr. L. St. John Hely  
 Marin County—  
 Dr. J. H. Kuser—Novato  
 Belvedere—Dr. Florence Scott  
 Corte Madera—  
 Larkspur—J. R. McGuffick  
 Mill Valley—James V. Chase  
 Ross—Dr. Thos. U. Smyth  
 San Anselmo—Dr. O. W. Jones  
 San Rafael—Dr. W. F. Jones  
 Sausalito—Dr. Allen H. Vance  
 Mariposa County—  
 Dr. F. L. Wright—Mariposa  
 Mendocino County—  
 Dr. S. L. Rea—Ukiah  
 Fort Bragg—Dr. L. C. Gregory  
 Point Arena—Conrad Nicks  
 Potter Valley—W. T. Eddle  
 Ukiah—Dr. Lew K. Van Allen  
 Willits—Dr. F. C. Gunn  
 Merced County—  
 Dr. J. L. Mudd—Merced  
 Gustine—Dr. C. E. Stagner  
 Los Banos—Dr. R. Jadarola  
 Merced—Dr. H. Kylberg  
 Modoc County—  
 Dr. H. B. Ehle—Alturas  
 Alturas—Dr. John Stile  
 Mono County—  
 Dr. C. W. Wood—Bridgeport  
 Monterey County—  
 Dr. J. A. Beck—Salinas  
 Carmel-by-the-Sea—J. F. Beardsley  
 King City—Dr. D. Brumwell  
 Monterey—C. A. Kiernan  
 Pacific Grove—James P. Evans  
 Salinas—W. E. Hallock



# LIST OF COUNTY AND CITY HEALTH OFFICERS—Continued.

Napa County—  
 Dr. O. T. Schulze-----Napa  
 Callistoga-----L. Randall  
 Napa-----Alex. Hull  
 St. Helena-----J. G. Johnson  
 Nevada County—  
 Dr. Carl P. Jones-----Grass Valley  
 Grass Valley-----Dr. G. E. Chappell  
 Nevada City-----Geo. H. Calanan  
 Orange County—  
 Dr. A. H. Domann-----Santa Ana  
 Anaheim-----Dr. J. W. Truxaw  
 Brea-----Dr. W. W. Davis  
 Fullerton-----Dr. J. H. Lang  
 Huntington Beach-----Dr. G. A. Shank  
 Newport Beach-----J. A. Porter  
 Orange-----Dr. F. L. Chapline  
 Santa Ana-----Dr. J. I. Clark  
 Seal Beach-----Dr. J. Park Dougall  
 Stanton-----J. H. Swan  
 Placer County—  
 Dr. John Manson-----Lincoln  
 Auburn-----Dr. G. H. Fay  
 Colfax-----Dr. R. A. Peers  
 Lincoln-----F. R. Elder  
 Rocklin-----Wm. H. Keeley  
 Roseville-----G. W. Lohse  
 Plumas County—  
 Dr. B. J. Lasswell-----Quincy  
 Riverside County—  
 Dr. James G. Baird-----Riverside  
 Banning-----Dr. L. M. Ryan  
 Beaumont-----Dr. F. D. West  
 Blythe-----Dr. W. H. Chapman  
 Corona-----Dr. W. S. Davis  
 Elsinore-----Dr. W. L. Shawk  
 Hemet-----Dr. H. O. Miller  
 Perris-----Dr. J. W. Reese  
 Riverside-----Dr. C. W. Girdlestone  
 San Jacinto-----Thomas Lloyd  
 Sacramento County—  
 Dr. J. H. Leimbach-----Isleton  
 Sacramento-----Dr. G. C. Simmons  
 San Benito County—  
 Dr. J. M. O'Donnell-----Hollister  
 Hollister-----Dr. J. M. O'Donnell  
 San Juan-----Joseph De Lucchi  
 San Bernardino County—  
 Dr. L. M. Coy-----San Bernardino  
 Chino-----Dr. Elgar Reed  
 Colton-----Dr. J. A. Champion  
 Needles-----Dr. A. S. Parker  
 Ontario-----Dr. Calvert L. Emmons  
 Redlands-----Dr. F. H. Folkins  
 Rialto-----Dr. L. P. Barbour  
 San Bernardino-----Dr. F. M. Gardner  
 Upland-----E. R. Bowman  
 San Diego County—  
 Dr. O. G. Wicherski-----San Diego  
 Chula Vista-----Dr. G. E. Fuller  
 Coronado-----Dr. Raffael Lorini  
 East San Diego-----Dr. C. R. Carpenter  
 El Cajon-----Dr. Chas. R. Knox  
 Escondido-----Dr. B. L. Crise  
 La Mesa-----Dr. L. W. Zochert  
 National City-----Dr. C. S. Owen  
 Oceanside-----Dr. R. S. Reid  
 San Diego-----Dr. W. W. Crawford  
 San Francisco (city and county)—  
 Dr. W. C. Hassler-----San Francisco  
 San Joaquin County—  
 Dr. John T. Davison-----Stockton  
 Lodi-----Dr. S. W. Hopkins  
 Stockton-----Dr. Linwood Dozler  
 Tracy-----Dr. J. G. Murrell  
 San Luis Obispo County—  
 Dr. C. J. McGovern-----San Luis Obispo  
 Arroyo Grande-----Dr. H. A. Gallup  
 Paso Robles-----T. A. Hurley  
 San Luis Obispo-----W. F. Cook  
 San Mateo County—  
 Dr. F. Holmes Smith-----San Bruno  
 Burlingame-----Dr. Jane H. Parkhurst  
 Daly City-----Dr. A. H. Rankin  
 Hillsborough-----C. M. Hirschey  
 Redwood City-----Dr. J. L. Ross  
 San Bruno-----Dr. F. Holmes Smith  
 San Mateo-----W. C. McLean  
 So. San Francisco-----Dr. J. C. McGovern  
 Santa Barbara County—  
 Dr. G. S. Lovern-----Santa Barbara  
 Lompoc-----Dr. C. B. Constable  
 Santa Barbara-----Dr. C. S. Stevens  
 Santa Maria-----Dr. O. P. Paulding

Santa Cruz County—  
 Dr. Wm. H. Keck-----Santa Cruz  
 Santa Cruz-----Dr. A. N. Nittler  
 Watsonville-----Dr. F. H. Koepke  
 Santa Clara County—  
 Dr. Wm. Simpson-----San Jose  
 Alviso-----Dr. J. I. Beattie  
 Gilroy-----Dr. J. W. Thayer  
 Los Gatos-----  
 Mayfield-----Joseph Ponce  
 Morgan Hill-----Dr. W. D. Miner  
 Mountain View-----Dr. A. H. MacFarlane  
 Palo Alto-----Louis Olson  
 San Jose-----Dr. D. A. Beattie  
 Santa Clara-----Dr. G. W. Fowler  
 Sunnyvale-----Mrs. Norman Schofield  
 Shasta County—  
 Dr. S. T. White-----Redding  
 Coram-----  
 Kennett-----Dr. J. P. Sandholt  
 Redding-----E. A. Rollison  
 Sierra County—  
 Dr. O. A. Eckhardt-----Downsville  
 Loyalton-----B. M. Wheeler  
 Siskiyou County—  
 Dr. W. F. Shaw-----Yreka  
 Dorris-----Dr. A. A. Atkinson  
 Dunsmuir-----Herman Woodward  
 Etna-----Dr. W. H. Haines  
 Fort Jones-----S. R. Taylor  
 Montague-----Hugh W. French  
 Sisson-----Dr. Paul Wright  
 Yreka-----Dr. W. F. Shaw  
 Solano County—  
 Dr. W. C. Jenney-----Vacaville  
 Benicia-----Dr. P. B. Fry  
 Dixon-----John C. Benson  
 Fairfield-----F. L. Morrill  
 Rio Vista-----Dr. Albert F. Wellin  
 Suisun-----Dr. A. G. Bailey  
 Vacaville-----W. F. Hughes  
 Vallejo-----Dr. E. A. Peterson  
 Sonoma County—  
 Dr. J. H. Shaw-----Santa Rosa  
 Cloverdale-----E. E. Gibbons  
 Healdsburg-----Dr. J. W. Seawell  
 Petaluma-----Dr. R. B. Duncan  
 Santa Rosa-----Dr. Jackson Temple  
 Sebastopol-----Dr. J. B. Blackshaw  
 Sonoma-----J. H. Albertson  
 Stanislaus County—  
 Dr. J. L. Hennemuth-----Modesto  
 Modesto-----Dr. J. W. Morgan  
 Newman-----Dr. H. V. Armistead  
 Oakdale-----Dr. F. W. McKibbin  
 Turlock-----Dr. G. L. Wilson  
 Sutter County—  
 Dr. I. W. Higgins-----Live Oak  
 Yuba City-----Dr. J. H. Barr  
 Tehama County—  
 Dr. E. E. Thompson-----Red Bluff  
 Corning-----Dr. O. F. Rudolph  
 Red Bluff-----Dr. Walter Gavey  
 Tehama-----Dr. Mary B. Poket  
 Trinity County—  
 Dr. D. B. Fields-----Weaverville  
 Tulare County—  
 Dr. A. W. Preston-----Visalia  
 Dinuba-----H. W. Ensign  
 Exeter-----Dr. J. F. Dungan  
 Lindsay-----Dr. C. W. Locke  
 Porterville-----Dr. O. C. Higgins  
 Tulare-----Dr. J. B. Rosson  
 Visalia-----Dr. A. W. Preston  
 Tuolumne County—  
 Dr. Wm. L. Hood-----Sonora  
 Sonora-----Dr. G. C. Wrigley  
 Ventura County—  
 Dr. A. A. Maulhardt-----Oxnard  
 Fillmore-----Dr. Will R. Manning  
 Oxnard-----Dr. G. A. Broughton  
 Ventura-----J. H. Hardey  
 Santa Paula-----Dr. G. C. Nichols  
 Yolo County—  
 Dr. W. J. Blevins-----Woodland  
 Davis-----Dr. W. E. Bates  
 Winters-----Dr. R. E. Peck  
 Woodland-----Frank Mumma  
 Yuba County—  
 Dr. J. H. Barr-----Marysville  
 Marysville-----Dr. A. L. Miller  
 Wheatland-----W. H. Niemeyer



## List of Diseases Reportable by Law

Anthrax	Opthalmia Neonatorum
Beri-beri	Paratyphoid Fever
Cerebrospinal Meningitis (Epidemic)	Pellagra
Chickenpox	Plague
Cholera, Asiatic	Pneumonia (Lobar)
Dengue	Poliomyelitis
Diphtheria	Rabies
Dysentery	Rocky Mountain Spotted (or Tick) Fever
Erysipelas	Scarlet Fever
German Measles	Smallpox
Glanders	*Syphilis
*Gonococcus Infection	Tetanus
Hookworm	Trachoma
Leprosy	Tuberculosis
Malaria	Typhoid Fever
Measles	Typhus Fever
Mumps	Whooping-cough
	Yellow Fever

\*Reported by office number. Name and address not required.

## Quarantinable Diseases

Cerebrospinal Meningitis (Epidemic)	Poliomyelitis
Cholera, Asiatic	Scarlet Fever
Diphtheria	Smallpox
Leprosy	Typhus Fever
Plague	Yellow Fever

Section 16, Public Health Act. All physicians, nurses, clergymen, attendants, owners, proprietors, managers, employees, and persons living in or visiting any sick person in any hotel, lodging house, house, building, office, structure, or other place where any person shall be ill of any infectious, contagious, or communicable disease, shall promptly report such fact to the county, city and county, city, or other local health board or health officer, together with the name of the person, if known, and place where such person is confined, and nature of the disease, if known.



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The principles for the control of syphilis and gonorrhea differ in no wise from those used to control smallpox, leprosy, tuberculosis, measles, diphtheria, etc. The health officer must not regard venereal disease as a punishment for sin and crime—the victim or culprit needs help and sympathy. The immediate problem is the prevention of further spread of the infection. A person afflicted with a venereal disease should be treated in the same humane spirit that actuates the physician in other diseases. Furthermore, the interests of the community require that the patient be accorded the best possible care and attention.

M. J. ROSENAU.

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